McGill University

Annual Calendar

FOR SESSION 1909-1910

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ANNUAL CALENDAR

OF

McGILL COLLEGE

AND

UNIVERSITY

MONTREAL.

FOUNDED UNDER BEQUEST OF THE HON. JAMES McGILL,
ERECTED INTO A UNIVERSITY BY ROYAL CHARTER
IN 1821, AND RE-ORGANIZED BY AN
AMENDED CHARTER IN 1852.

SESSION 1909-1910

Montreal:

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The *List of Graduates*, corrected to July, 1909, is published separately. Copies can be obtained on application to the Registrar.

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Governing Body of the University.

VISITOR.

HIS EXCELLENCY THE RIGHT HONOURABLE EARL GREY, G.C.M.G., LL.D.,
GOVERNOR-GENERAL OF CANADA, ETC.

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WILLIAM PETERSON, M.A., LL.D., C.M.G., Vice-Chancellor.
(The Principal has, under the Statutes, the general superintendence of all affairs of the College and University, under such regulations as may be in force.)

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S. B. SINCLAIR, B.A., Ph.D., Head of the Teachers' Training Department, Macdonald College.
WELLINGTON DIXON, B.A., Rector of the Montreal High Schools.
H. C. PERRIN, Mus Doc., Director of the McGill Conservatorium of Music.
ETHEL HURLBATT, M.A., Warden of the Royal Victoria College.

To retire 1st September, 1910.

H. J. Silver, B.A., Representative Fellow in Arts.

R. F. Ruttan, B.A., M.D., F.R.S.C., Elective Fellow, Faculty of Medicine.

C. H. Gould, B.A., Governors' Fellow.

James Harkness, M.A., Elective Fellow, Faculty of Arts.

Rev. E. M. Hill, D.D., Representative Fellow, Congregational College of Canada, Principal of the College.

W. Grant Stewart, B.A., M.D., Representative Fellow in Medicine.

Rev. E. I. Rexford, M.A., LL.D., Representative Fellow, Montreal Diocesan Theological College, Principal of the College.

Percy E. Nobbs, M.A., Elective Fellow, Faculty of Applied Science.

Victor E. Mitchell, B.C.L., Representative Fellow in Law.

To retire 1st September, 1911.

Rev. John Scrimger, M.A., D.D., Representative Fellow, Presbyterian College, Montreal, Principal of the College.

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FACULTY OF MEDICINE.

THE PRINCIPAL.

FRANCIS J. SHEPHERD, M.D., LL.D. (Edin. and Harvard), F.R.C.S.E., *Dean of the Faculty and Professor of Anatomy and Dermatology.* 152 Mansfield Street.

WILLIAM GARDNER, M.D.
Professor of Gynæcology. 457 Sherbrooke Street W.

GEORGE WILKINS, M.D.
Professor of Medical Jurisprudence. 538 Dorchester Street W.

D. P. PENHALLOW, D.Sc., F.R.S.C., F.R.M.S.
Professor of Botany. The Linton Apartments.

T. WESLEY MILLS, M.A., M.D., F.R.S.C.
Joseph Morley Drake Professor of Physiology. McGill College.

J. CHALMERS CAMERON, M.D.
Professor of Midwifery and Diseases of Infants. 605 Dorchester Street W.

ALEX. D. BLACKADER, B.A., M.D.
Professor of Pharmacology and Therapeutics, and of Diseases of Children. 236 Mountain Street.

R. F. RUTTAN, B.A. (Toronto), M.D., F.R.S.C.
Professor of Organic and Biological Chemistry. McGill College.

JAMES BELL, M.D.
Professor of Surgery and of Clinical Surgery. 409 Dorchester Street W.

J. GEORGE ADAMI, M.A., M.D. (Cantab. and McGill), LL.D. (Univ. N.B.), F.R.S., FR.SS. (Edin. and Can.), late Fellow of Jesus College, Cambridge.
Strathcona Professor of Pathology and Director of Pathological Museum. 331 Peel Street.

H. S. BIRKETT, M.D.
Professor of Oto-Laryngology. 252 Mountain Street.

F. G. FINLEY, M.B. (London), M.D.
Professor of Medicine and of Clinical Medicine. 729 Dorchester Street W.

H. A. LAFLEUR, B.A., M.D.
Professor of Medicine and of Clinical Medicine. 58 University Street.

GEORGE E. ARMSTRONG, M.D.
Professor of Surgery and of Clinical Surgery. 320 Mountain Street.

T. A. STARKEY, M.B. (Lond.), D.P.H. (Lond.), M.R.C.S. (Eng.), Fell. Royal San. Inst.
Professor of Hygiene. 178 Mansfield Street.

J. W. STIRLING, M.B.
Professor of Ophthalmology. 128 Stanley Street.

C. F. MARTIN, B.A., M.D.
Professor of Medicine and of Clinical Medicine. 33 Durocher Street.

Strathcona Professor of Zoology.

(The above Professors constitute the Faculty of Medicine.)

Other Officers of Instruction.

T. J. W. Burgess, M.D., F.R.S.C., Medical Superintendent, Protestant Hospital for Insane.
Professor of Mental Diseases. Drawer 2562, Montreal.

Andrew Macphail, B.A., M.D.
Professor of the History of Medicine. 216 Peel Street.

John L. Todd, B.A., M.D., M.R.C.S. (Eng.)., D.Sc. (Hon., Liverpool).
Macdonald College P.O. Que.

John M. Elder, B.A., M.D.,
Assistant Professor of Surgery and Lecturer in Clinical Surgery 4201 Sherbrooke Street, Westmount.

J. G. McCarthy, M.D.
Assistant Professor of Anatomy. 61 Drummond Street.

W. S. Morrow, M.D.
Assistant Professor of Physiology. 82 Union Avenue.

A. G. Nicholls, M.A., M.D.
Assistant Professor of Pathology and Bacteriology, and Lecturer in Clinical Medicine. 35 Bishop Street.

A. E. Garrow, M.D.
Assistant Professor of Surgery and Clinical Surgery.
289 Mountain Street.

W. F. Hamilton, M.D.
Assistant Professor of Clinical Medicine. 287 Mountain St.

J. Alex. Hutchison, M.D.
Assistant Professor of Surgery and Clinical Surgery.
70 Mackay Street.

F. A. L. Lockhart, M.B. (Edin.).
Lecturer in Gynaecology. 38 Bishop Street.

G. Gordon Campbell, B.Sc., M.D.
Lecturer in Medicine and Clinical Medicine and on Diseases of Infants and Children and Dermatology. 117 Metcalfe St.

D. J. Evans, M.D.
Lecturer in Obstetrics and Diseases of Children.
603 Dorchester Street, West

W. W. Chipman, B.A., M.D. (Edin.), F.R.C.S. (Edin.).
Lecturer in Gynaecology 285 Mountain Street.

S. Ridley Mackenzie, M.D.
Lecturer in Clinical Medicine. 219 Peel Street.

John McCrae, M.B. (Toronto), M.R.C.P. (Lond.).
Lecturer in Pathology and Clinical Medicine. 190 Peel St.

D. D. McTaggart, M.D.
Assistant Professor of Medical Jurisprudence.
221 Sherbrooke Street W.

J. W. Scane, M.D.
Lecturer in Pharmacology and Therapeutics. McGill College.

A. A. Robertson, B.A., M.D.
Lecturer in Physiology. 136 Mansfield Street.

W. G. M. Byers, M.D.
Lecturer in Ophthalmology. 346 Mountain Street.

A. Arthman Bruere, M.D. (Edin.).
Lecturer in Clinical Medicine.
713 Mance Street, Montreal Annex.

WALTER M. FISK, M.D.
Lecturer in Histology and Demonstrator in Diseases of Children. 98 Park Avenue.

OSKAR KLOTZ, M.B. (Toronto), M.D.
Lecturer in Pathology. Royal Victoria Hospital.

CHARLES W. DUVAL, M.D.
Lecturer in Pathology and Histology and Director of the Histological Laboratory. General Hospital, Montreal.

J. A. HENDERSON, M.D.
Lecturer in Anatomy. 34 Park Avenue.

H. B. YATES, B.A. (Cantab.), M.D.
Lecturer in Bacteriology. 257 Peel Street.

A. H. GORDON, M.D.
Lecturer in Physiology. and Demonstrator in Clinical Medicine. 125 Hutchison Street.

D. A. SHIRRES, M.D.
Lecturer in Clinical Neurology. The Sherbrooke.

KENNETH CAMERON, B.A., M.D.
Lecturer in Clinical Surgery.
The Linton Apartments, 731 Sherbrooke St. W.

G. H. MATHEWSON, B.A., M.D.
Lecturer in Ophthalmology.
205 Birks' Building, Phillips Square.

E. W. ARCHIBALD, B.A., M.D.
Lecturer in Clinical Surgery. 190 Peel Street

W. L. BARLOW, B.A., M.D.
Lecturer in Clinical Surgery.
4458 Sherbrooke Street, Westmount.

S. E. WOLBACK, M.D.
Lecturer in Pathology and Histology and Director of the Histological Laboratory.

H. M. LITTLE, M.D.
Lecturer in Obstetrics and Diseases of Infants and Demonstrator in Gynaecology.

MAUDE E. ABBOTT, B.A., M.D. (Bishop's). L.R.C.P. & S. (Edin.),
Governors' Fellow in Pathology and Curator of Medical Museum. McGill College.

LOUIS BAUMANN, M.D.
Sessional Lecturer in Biological Chemistry.

J. J. ROSS, B.A., M.D.
Demonstrator in Anatomy. 414 Bourgeois Street.

A. E. ORR, M.D.
Demonstrator in Anatomy. 540 Dorchester Street W.

H. D. HAMILTON, M.A. (Bishop's), M.D., L.R.C.P. & S. (Edin.), L.F.P. & S. (Glasgow).
Demonstrator in Laryngology and Rhinology.
Birks Building, Phillips Square.

F. B. JONES, M.D., D.P.H.
Demonstrator in Hygiene. 98 Sherbrooke Street W.

W. B. HOWELL, M.D.
Demonstrator in Physiology. 47 St. Mark St.

H. B. CUSHING, B.A., M.D.
Demonstrator in Histology and Clinical Medicine.
231 Stanley Street.

J. L. D. Mason, B.A., M.D.
Demonstrator in Pharmacology and Therapeutics.
30 Shuter Street.

C. B. Keenan, M.D.
Demonstrator in Clinical Surgery. 376 Mountain Street.

H. M. Church, M.D.
Demonstrator in Anatomy. 401 Metcalfe Ave., Westmount.

J. R. Goodall, M.D.
Demonstrator in Gynaecology.

A. T. Bazin, M.D.
Demonstrator in Clinical Surgery.
4064 Dorchester St., Westmount.

H. R. D. Gray, B.A., M.D.
Demonstrator in Obstetrics. 59 Beaver Hall Hill.

C. F. Wylde, M.D.
Demonstrator in Clinical Medicine and Clinical Microscopy.
101 Crescent Street.

David Patrick, M.D.
Demonstrator in Gynaecology.
4174 St. Catherine Street, Westmount.

C. A. Peters, M.D.
Demonstrator in Clinical Medicine.
1020 St. Catherine Street, West.

F. M. Fry, B.A., M.D.
Demonstrator in Clinical Medicine. 577 Dorchester Street W.

R. P. Campbell, B.A., M.D.
Demonstrator in Pathology and Assistant Demonstrator in Clinical Surgery. 343 Dorchester Street W.

A. C. P. Howard, B.A., M.D.
Demonstrator in Clinical Chemistry, Clinical Medicine and Diseases of Infants and Children. 56 Mackay Street.

Charles K. P. Henry, M.D.
Demonstrator in Anatomy and Assistant Demonstrator in Clinical Surgery. 4549 Sherbrooke St., Westmount.

Colin K. Russel, B.A., M.D.
Demonstrator in Clinical Medicine. 423 Guy Street.

W. H. Jamieson, M.D.
Demonstrator in Oto-Laryngology. 209 Peel Street.

Campbell Howard, M.D.
Demonstrator in Chemistry.

T. P. Shaw, M.D.
Demonstrator in Physiology.

A. R. Pennoyer, M.D.
Demonstrator in Clinical Surgery. 98 Mackay Street.

W. P. Burnett, M.D.
Demonstrator in Dermatology.

A. Mackenzie Forbes, M.D.
Demonstrator in Orthopoedic Surgery.
231 Stanley Street.

F. T. Tooke, B.A., M.D.
Demonstrator in Ophthalmology. 368 Mountain Street.

S. HANFORD MCKEE, B.A., M.D.
Demonstrator in Bacteriology and Ophthalmology.
249 Mountain Street.

ROBERT H. CRAIG, M.D.
Demonstrator in Rhinology and Laryngology.
186 Peel Street.

J. A. LUNDIE, M.D., D.P.H.
Demonstrator in Hygiene.

H. C. MEAKINS, M.D.
Demonstrator in Clinical Medicine.

W. W. FRANCIS, A.B., and M.D. (Johns Hopkins).
Demonstrator in Pathology and Assistant Demonstrator in Clinical Medicine. 125 Mansfield Street.

J. W. DUNCAN, M.D.
Demonstrator in Obstetrics.
"The New Sherbrooke," Sherbrooke St.

W. G. TURNER, M.D.
Demonstrator in Orthopoedic Surgery. 208 Peel Street.

W. H. DONNELLY, M.D.
Demonstrator in Bacteriology. 543 St. Antoine Street.

J. APPLETON NUTTER, B.A., M.D.
Assistant Demonstrator in Anatomy. 45 Cathcart Street.

J. G. BROWNE, B.A., M.D.
Assistant Demonstrator in Clinical Medicine. 1171 St. Denis St.

E. M. VON EBERTS, M.D.
Assistant Demonstrator in Clinical Surgery. 107 Metcalfe Street.

W. H. P. HILL, M.D.
Assistant Demonstrator in Clinical Surgery. 86 Mackay Street.

A. G. MCAULEY, M.D.
Assistant Demonstrator in Clinical Medicine.
475 St. Antoine Street.

A. L. C. GILDAY, B.A., M.D.
Assistant Demonstrator in Physiology.

D. W. MCKECHNIE, M.D.
Assistant Demonstrator in Clinical Medicine.
737 Park Ave., Montreal Annex.

H. C. BURGESS, M.D.
Assistant Demonstrator in Obstetrics.

A. C. RANKIN, M.D.
Assistant Demonstrator in Bacteriology.

J. W. HUTCHINSON, M.D.
Assistant Demonstrator in Clinical Surgery.

F. MCKENTY, M.D.
Assistant Demonstrator in Clinical Surgery.

H. S. MUCKLESTON, M.D.
Assistant Demonstrator in Oto-Laryngology.

HAMILTON WHITE, B.A., M.D.
Assistant Demonstrator in Oto-Laryngology.

Dental Department.

Peter Brown, L.D.S.
Professor of Operative Dentistry and Operative Technique. 14 Phillips Square.

Fred. G. Henry, D.D.S.
Professor of Dental Pathology, Dental Materia-Medica and Therapeutics. Corner Guy and St. Catherine Streets.

D. James Berwick, D.D.S.
Professor of Operative and Prosthetic Dentistry. 485 St. Catherine Street W.

James B. Morrison, D.D.S.
Professor of Orthodontia and Crown and Bridge Work. 14 Phillips Square.

Stanley Burns, D.D.S.
Lecturer in Metallurgy and Prosthetic Dentistry. 750 St. Catherine St. W.

F. H. A. Baxter, D.D.S.
Demonstrator in Prosthetic Technique. Lindsay Building.

FACULTY OF AGRICULTURE.

(Macdonald College.)

The Principal.

J. W. Robertson, LL.D., C.M.G.
Principal Macdonald College. St. Anne de Bellevue.

F. C. Harrison, B.S.A. (Toronto), D.Sc.
Professor of Bacteriology. "

William Lochhead, B.A., M.Sc.
Professor of Biology "

Carleton J. Lynde, Ph.D.
Professor of Physics. "

Leonard S. Klinck, B.S.A., M.S.
Professor of Husbandry. "

For other Officers of Instruction in the several departments of Macdonald College, see page 351.

McGILL UNIVERSITY COLLEGE OF BRITISH COLUMBIA.

See page 382.

Emeritus Professors.

(Retaining their Rank and Titles, but retired from work.)

ALEX. JOHNSON, M.A., LL.D., D.C.L., F.R.S.C.
Vice-Principal Emeritus, and Emeritus Professor in the Faculty of Arts. 5 Prince of Wales Terrace.

HON. MATTHEW HUTCHINSON, D.C.L.
Emeritus Professor in the Faculty of Law.
Sherbrooke, Que.

HON. J. EMERY ROBIDOUX, D.C.L., Officier de l'Instruction Publique, Chevalier de la Légion d'Honneur.
Emeritus Professor in the Faculty of Law. 151 University Street.

GILBERT P. GIRDWOOD, M.D.C.M., M.R.C.S. (England), F.I.C., F.C.S., F.R.S.C.
Emeritus Professor in the Faculty of Medicine.
111 University Street.

J. CLARK MURRAY, LL.D., F.R.S.C.
Emeritus Professor in the Faculty of Arts. 20 McTavish Street.

DUNCAN MCEACHRAN, D.V.S., F.R.C.V.S.
Emeritus Dean and Professor in the Faculty of Comparative Medicine and Veterinary Science. 176 University Street.

THOMAS G. RODDICK, M.D., LL.D. (Edin.).
Emeritus Dean and Professor in the Faculty of Medicine.
80 Union Ave.

ACADEMICAL YEAR 1909–1910.

SEPTEMBER, 1909.

1	Wednesday	Supplemental Examinations for Students attending the Survey School.
2	Thursday	
3	Friday	
4	Saturday	
5	SUNDAY	
6	Monday	
7	Tuesday	
8	Wednesday	
9	Thursday	Finance Committee.
10	Friday	
11	Saturday	
12	SUNDAY	
13	Monday	
14	Tuesday	
15	Wednesday	
16	Thursday	
17	Friday	
18	Saturday	
19	SUNDAY	New Medical Buildings opened, 1901.
20	Monday	
21	Tuesday	
22	Wednesday	
23	Thursday	Matriculation, Exhibition, Scholarship and Supplemental Examinations.
24	Friday	Register opens for Students in Medicine.
25	Saturday	
26	SUNDAY	
27	Monday	Meeting of Governors.
28	Tuesday	Registration of new Students.
29	Wednesday	Registration of new Students continued.
30	Thursday	Registration of new Students continued.

OCTOBER, 1909

1	Friday	Session opens in all Faculties. Conservatorium of Music opens. Registration of students previously enrolled.
2	Saturday	Meeting of Faculty of Medicine.
3	SUNDAY	
4	Monday	Meeting of Faculty of Applied Science.
5	Tuesday	
6	Wednesday	Founder's Birthday. University Lecture.
7	Thursday	Physics Building Committee.
8	Friday	Sports Day. Meeting of Faculty of Arts.
9	Saturday	
10	SUNDAY	William Molson Hall opened, 1862.
11	Monday	Summer Essays in Applied Science to be sent in. Museum Committee. Library Committee.
12	Tuesday	
13	Wednesday	Regular Meeting of Corporation.
14	Thursday	Conservatorium of Music opened, 1904. Finance Committee.
15	Friday	Meeting of Teachers' Training Committee.
16	Saturday	
17	SUNDAY	
18	Monday	Eng.'g Building Committee. Chemistry and Mining Building Committee.
19	Tuesday	
20	Wednesday	
21	Thursday	
22	Friday	Meeting of Faculty of Arts.
23	Saturday	
24	SUNDAY	
25	Monday	Meeting of Governors.
26	Tuesday	
27	Wednesday	
28	Thursday	
29	Friday	
30	Saturday	
31	SUNDAY	New Library opened, 1893.

NOTE.—Meetings of the Faculty of Arts are held at 4 P.M. unless otherwise specified.

NOVEMBER, 1909.

1	Monday	Meeting of Faculty of Applied Science.
2	Tuesday	
3	Wednesday	
4	Thursday	
5	Friday	
6	Saturday	Meeting of Faculty of Medicine.
7	SUNDAY	
8	Monday	
9	Tuesday	Edward VII born, 1841.
10	Wednesday	
11	Thursday	Finance Committee.
12	Friday	Meeting of Faculty of Arts.
13	Saturday	
14	SUNDAY	
15	Monday	Engineering Building Committee. Chemistry and Mining Building Committee.
16	Tuesday	
17	Wednesday	
18	Thursday	
19	Friday	
20	Saturday	
21	SUNDAY	
22	Monday	Meeting of Governors.
23	Tuesday	
24	Wednesday	
25	Thursday	
26	Friday	
27	Saturday	
28	SUNDAY	
29	Monday	
30	Tuesday	

DECEMBER, 1909.

1	Wednesday	Meeting of Academic Board.
2	Thursday	Physics Building Committee.
3	Friday	Meeting of Faculty of Arts. Meeting of Teachers' Training Committee.
4	Saturday	Meeting of Faculty of Medicine.
5	SUNDAY	
6	Monday	Meeting of Faculty of Applied Science. Museum Committee. Library Committee.
7	Tuesday	
8	Wednesday	Regular Meeting of Corporation.
9	Thursday	Finance Committee.
10	Friday	
11	Saturday	
12	SUNDAY	
13	Monday	
14	Tuesday	Lectures for first term in Arts and Applied Science end.
15	Wednesday	
16	Thursday	Christmas Examinations in Arts and Applied Science begin. Lectures for first term in Medicine end.
17	Friday	Lectures for first term in Law end. Meeting of Faculty of Arts.
18	Saturday	
19	SUNDAY	
20	Monday	Chemistry and Mining Building opened, 1898. Engineering Building Committee. Chemistry and Mining Building Committee.
21	Tuesday	
22	Wednesday	Christmas Vacation begins.
23	Thursday	
24	Friday	
25	Saturday	Christmas Day.
26	SUNDAY	
27	Monday	Meeting of Governors.
28	Tuesday	
29	Wednesday	
30	Thursday	
31	Friday	

1	Saturday	Meeting of Faculty of Medicine.
2	SUNDAY	
3	Monday	Meeting of Faculty of Applied Science.
4	Tuesday	
5	Wednesday	Second Term opens in all Faculties.
6	Thursday	
7	Friday	
8	Saturday	
9	SUNDAY	
10	Monday	
11	Tuesday	
12	Wednesday	
13	Thursday	Finance Committee.
14	Friday	Meeting of Faculty of Arts.
15	Saturday	
16	SUNDAY	
17	Monday	Engineering Building Committee. Chemistry and Mining Building Committee.
18	Tuesday	
19	Wednesday	
20	Thursday	
21	Friday	
22	Saturday	Queen Victoria died, 1901.
23	SUNDAY	
24	Monday	Meeting of Governors.
25	Tuesday	
26	Wednesday	
27	Thursday	
28	Friday	
29	Saturday	
30	SUNDAY	
31	Monday	

FEBRUARY, 1910.

1	Tuesday	
2	Wednesday	
3	Thursday	Physics Building Committee.
4	Friday	Meeting of Faculty of Arts. Meeting of Teachers' Training Committee
5	Saturday	Meeting of Faculty of Medicine.
6	SUNDAY	
7	Monday	Museum Committee. Library Committee. Meeting of Faculty of Applied Science.
8	Tuesday	
9	Wednesday	Regular Meeting of Corporation. Ash Wednesday.
10	Thursday	Finance Committee.
11	Friday	
12	Saturday	
13	SUNDAY	
14	Monday	
15	Tuesday	
16	Wednesday	
17	Thursday	
18	Friday	Meeting of Faculty of Arts.
19	Saturday	
20	SUNDAY	
21	Monday	Engineering Building Committee. Chemistry and Mining Building Committee.
22	Tuesday	
23	Wednesday	
24	Thursday	Physics and Engineering Buildings opened, 1893.
25	Friday	
26	Saturday	
27	SUNDAY	
28	Monday	Meeting of Governors.

MARCH, 1910.

1	Tuesday	
2	Wednesday	Meeting of Academic Board.
3	Thursday	
4	Friday	Meeting of Faculty of Arts.
5	Saturday	Meeting of Faculty of Medicine.
6	SUNDAY	
7	Monday	Meeting of Faculty of Applied Science.
8	Tuesday	
9	Wednesday	
10	Thursday	Finance Committee.
11	Friday	
12	Saturday	
13	SUNDAY	
14	Monday	
15	Tuesday	
16	Wednesday	
17	Thursday	
18	Friday	Meeting of Faculty of Arts.
19	Saturday	
20	SUNDAY	
21	Monday	Engineering Building Committee. Chemistry and Mining Building Committee.
22	Tuesday	
23	Wednesday	
24	Thursday	
25	Friday	Good Friday.
26	Saturday	
27	SUNDAY	Easter Sunday.
28	Monday	Meeting of Governors.
29	Tuesday	
30	Wednesday	
31	Thursday	

APRIL, 1910.

1	Friday	Meeting of Teachers' Training Committee.
2	Saturday	Meeting of Faculty of Medicine.
3	SUNDAY	
4	Monday	Meeting of Faculty of Applied Science.
5	Tuesday	Macdonald Engineering Building burned, 1907.
6	Wednesday	
7	Thursday	Physics Building Committee.
8	Friday	Meeting of Faculty of Arts.
9	Saturday	
10	SUNDAY	
11	Monday	Museum Committee. Library Committee. Last day for receiving M.A. and M.Sc. theses.
12	Tuesday	
13	Wednesday	Regular Meeting of Corporation.
14	Thursday	Last day of Lectures in Arts, Law and Applied Science. Finance Committee.
15	Friday	
16	Saturday	Medical Building burned, 1907.
17	SUNDAY	
18	Monday	Examinations in Arts, Law and Applied Science begin. Engineering Building Committee. Chemistry and Mining Building Committee.
19	Tuesday	
20	Wednesday	
21	Thursday	
22	Friday	Meeting of Faculty of Arts.
23	Saturday	
24	SUNDAY	
25	Monday	Meeting of Governors.
26	Tuesday	
27	Wednesday	
28	Thursday	
29	Friday	
30	Saturday	

MAY, 1910.

1	SUNDAY	
2	Monday	Meeting of Faculty of Applied Science.
3	Tuesday	
4	Wednesday	
5	Thursday	
6	Friday	
7	Saturday	Meeting of Faculty of Medicine.
8	SUNDAY	
9	Monday	
10	Tuesday	
11	Wednesday	Convocation for Conferring Degrees in Arts, Law and Applied Science.
12	Thursday	Finance Committee.
13	Friday	
14	Saturday	
15	SUNDAY	
16	Monday	Engineering Building Committee. Chemistry and Mining Building Committee.
17	Tuesday	
18	Wednesday	
19	Thursday	
20	Friday	
21	Saturday	
22	SUNDAY	
23	Monday	Meeting of Governors.
24	Tuesday	
25	Wednesday	
26	Thursday	
27	Friday	
28	Saturday	
29	SUNDAY	
30	Monday	
31	Tuesday	

JUNE, 1910.

1	Wednesday	Graduate course in Medicine begins.
2	Thursday	Physics Building Committee.
3	Friday	Meeting of Teachers' Training Committee.
4	Saturday	Meeting of Faculty of Medicine.
5	SUNDAY	
6	Monday	Museum Committee. Library Committee.
7	Tuesday	
8	Wednesday	Regular Meeting of Corporation.
9	Thursday	Finance Committee.
10	Friday	
11	Saturday	
12	SUNDAY	
13	Monday	
14	Tuesday	
15	Wednesday	
16	Thursday	
17	Friday	
18	Saturday	
19	SUNDAY	
20	Monday	Engineering Building Committee. Chemistry and Mining Building Committee.
21	Tuesday	
22	Wednesday	
23	Thursday	
24	Friday	
25	Saturday	
26	SUNDAY	
27	Monday	Meeting of Governors.
28	Tuesday	
29	Wednesday	
30	Thursday	

JULY, 1910.

1 Friday	
2 Saturday	
3 SUNDAY	
4 Monday	
5 Tuesday	
6 Wednesday	
7 Thursday	
8 Friday	
9 Saturday	
10 SUNDAY	
11 Monday	
12 Tuesday	
13 Wednesday	
14 Thursday	
15 Friday	
16 Saturday	
17 SUNDAY	
18 Monday	
19 Tuesday	
20 Wednesday	
21 Thursday	
22 Friday	
23 Saturday	
24 SUNDAY	
25 Monday	
26 Tuesday	
27 Wednesday	
28 Thursday	
29 Friday	
30 Saturday	
31 SUNDAY	

AUGUST, 1910.

1 Monday	
2 Tuesday	
3 Wednesday	
4 Thursday	
5 Friday	
6 Saturday	
7 SUNDAY	
8 Monday	
9 Tuesday	
10 Wednesday	
11 Thursday	
12 Friday	
13 Saturday	
14 SUNDAY	
15 Monday	
16 Tuesday	Peter Redpath Museum opened, 1882.
17 Wednesday	
18 Thursday	
19 Friday	
20 Saturday	
21 SUNDAY	
22 Monday	
23 Tuesday	
24 Wednesday	
25 Thursday	
26 Friday	
27 Saturday	
28 SUNDAY	
29 Monday	
30 Tuesday	
31 Wednesday	

TIME TABLES

OF

LECTURES AND EXAMINATIONS.

TIME TABLES OF LECTURES.

Faculty of Arts.

Hour.	First Year Men.	First Year Women.	Second Year.	Third & Fourth Years.
Lectures at 9, omitting Friday.	Mathematics.	English. Gymnasium. (Tues. & Thurs.)	English—Men. French—Women. German—Men (Fri.)	Education. Sanskrit. Geology. (Mon. Wed. Thurs.)
Lectures at 10, omitting Tuesday	Latin.	French.	Chemistry. (Mon. Wed. Thurs.) German—Men (Tues.) Hebrew. Gymnasium—Women. (Tues.)	History. Mathematics. German. Botany. Physics.
Lectures at 11, omitting Thursday	French. History (Thurs.)	Latin.	Economics and History. German—Women. Gymnasium—Women. (Thurs.) German—Men (Thurs.)	Economics. Latin. Chemistry. Hebrew. English. Eng. Comp. III (Wed.)
Lectures at 12, omitting Wednesday	English. (Mon. & Thurs.)	Mathematics. History. (Wed.)	Latin. German—Men (Wed.)	Philosophy. French. Eng. Comp. IV (Wed.)
Lectures at 2, omitting Wednesday	Physics. (Tues. & Thurs.)	Physics. (Mon. & Fri.)	Mathematics. *Zoology— Women (Mon. & Thurs); Men (Tues. and Fri.) †Botany (Tues. and Fri.) Logic.	Political Science. Zoology (Tues. and Fri.)
Lectures at 3, omitting Wednesday	Greek.	German.	English—Women. French—Men.	Greek. Psychology. Mechanics. (Mon. and Thurs.) Astronomy (Tues. & Fri.)
Lectures at 4, omitting Wednesday	German.	Greek.	Greek.	Logic. English. Comp. Philology. (Tues. & Thurs.)
Lectures at 5, omitting Wednesday				Roman Law. Education. Constitutional Law. (Tues. and Fri.)

LABORATORY HOURS. Second Year: Chemical Laboratory for Men and Women, Monday and Thursday, from 3 to 5; Zoological Laboratory* for Men, Tuesday and Friday, 3 to 5—for Women, Tuesday and Wednesday, 3 to 5; Botanical Laboratory† for Men and Women, Wednesday, 2 to 4, and Saturday, 11 to 1.

Third and Fourth Years: Chemical Laboratory, Monday, 2 to 5, Wednesday, 3 to 6, Saturday, 9 to 12; Zoological Laboratory*, Monday 2 to 4, and Thursday, 2 to 4; Botanical Laboratory† Tuesday, 3 to 6, and Friday, 3 to 6; Physics Laboratory, Monday and Tuesday, 2 to 4; Geological Laboratory, Saturday, 9 to 1.

*Before Christmas. †After Christmas.

TIME TABLE OF LECTURES.

Faculty of Law (Session 1909-1910.)

FIRST YEAR.

Friday, 1st October, to Friday, 17th December—(11 weeks).

Hour.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
8.30	Prof. McGoun.	Prof. MacDougall (Persons.)	Prof. McGoun.	Prof. MacDougall (Persons.)	Mr. Surveyer.
3.00				The Dean. (Obligations.)	
4.00	The Dean. (Roman.)	The Dean. (Obligations.)	The Dean. (Roman.)		The Dean. (Roman.)
5.00	Prof. Marler. (6 weeks.) The Dean. (5 weeks.) Constitutional.	Prof. Marler. (6 weeks.) Mr. Surveyer. (5 weeks.)	Prof. Marler. (6 weeks.) Mr. Surveyer. (5 weeks.)		Prof. Marler. (6 weeks.) The Dean. (5 weeks.) Constitutional.

Wednesday, 5th January to Friday, 15th April—(14 weeks).

Hour.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
8.30	Prof. MacDougall (Procedure.)	Mr. Surveyer.		Mr. Surveyer.	Prof. MacDougall
3.00				The Dean. (Obligations.)	
4.00	Prof. Doherty. (International.	The Dean. (Obligations.)	The Dean. (Constitutional)		Prof. Doherty (International)
5.00	The Dean. (Constitutional) 11 weeks. Prof. Davidson (Criminal.) (3 weeks.)	The Dean. (Roman.)	The Dean. (Roman.) Prof. Davidson. (3 weeks.)		The Dean. (Roman.) (11 weeks.) Prof. Davidson (3 weeks.)

Lectures begin on the afternoon of Friday, October 1st.

TIME TABLES OF LECTURES.

Faculty of Law (Session 1909-1910).

SECOND AND THIRD YEARS.

(Friday, 1st Oct., to Friday, 17th December—11 weeks).

Hours.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
8.30	Prof. Doherty.	Prof. Doherty.	Mr. Wainwright.	Prof. Doherty	Prof. Doherty
3.00				The Dean. (Obligations.)	
4.00	Prof. Doherty.	The Dean. (Obligations.)	Prof. Doherty		Prof. Doherty
5.00	Prof. Davidson.	Prof. Smith.	Prof. Davidson.		Prof. Davidson

Wednesday, 5th January to Friday, 15th April—(14 weeks).

Hours.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
8.30	Prof. Geoffrion.	Prof. McGoun	Prof. Geoffrion	Prof. McGoun	Prof. Geoffrion.
3.00				The Dean. (Obligations.)	
4.00	Prof. Doherty (International)	The Dean (Obligations.)			Prof. Doherty (International)
5.00	Prof. Davidson (3 weeks) Com. Law (9 weeks)	Prof. Smith	Prof. Davidson (3 weeks) Com. Law. (9 weeks)		Prof. Davidson (3 weeks) Com. Law (9 weeks)

Lectures begin on the afternoon of Friday, October 1st. The lectures on International Law will be given during this and the next session to all three years together. Thereafter they will be given to the First and Second Years together.

TIME TABLES OF LECTURES.

Faculties of Applied Science and Medicine (Session 1909-1910).

The Time Tables of Lectures in these Faculties will be issued to students at the commencement of the session.

EXAMINATION TIME TABLES.

MATRICULATION EXAMINATION.

SEPTEMBER, 1909.

THURSDAY, SEPTEMBER 23RD.

Morning 9–10.30.—English Grammar.
10.30–11.—English Dictation.
11.12.—English Composition (Prelim.)
Afternoon 2.30–4.30.—English Literature and Composition.
4.30–6.30.—History.

FRIDAY, SEPTEMBER 24TH.

Morning 9–11.—Latin Books.
11–1.—Arithmetic.
Afternoon 2.30–4.30.—Latin Composition and Sight.

MONDAY, SEPTEMBER 27TH.

Morning 9–11.—French.
11–12–30.—Trigonometry.
Afternoon 2.30–4.30.—German.
4.30–6.—Chemistry and Botany.

TUESDAY, SEPTEMBER 28TH.

Morning 9–11.—Geometry, Part I.
11–12.30.—Physics and Physiography.
Afternoon 2.30–4.—Algebra, Part II.
4–5.30.—Geometry, Part II.

WEDNESDAY, SEPTEMBER 29TH.

Morning 9–11.—Algebra, Part I.
11–1.—Greek Books.
Afternoon 2.30–4.30.—Greek Composition and Sight.

EXAMINATION TIME TABLES.

Faculty of Arts.

Exhibition, Scholarship and Supplemental Examinations, September, 1909.

DATE.	Hour.	Supp. to First Year Sessional.	Second Year Exhibitions.	Supp. to Second Year Sessional.	Scholarships (Third Year).	Supp. to Third Year Sessional.*
Thursday.....23	9	English Literature.	English Literature (Shakspere); History.	English Literature.	English Literature (Shakspere and Milton).	English Literature.
	2.30	English Composition and History.	English Literature. (Milton, Johnson).	English Composition.	English Literature (Burke & Arnold).	English Composition.
Friday.....24	9	Latin Books.	Latin Books.	Latin Books.	Latin Texts.	Latin Books.
	2.30	Latin Composition, Sight Translation and History.	Latin Composition, Sight Translation and History.	Latin Composition, Sight Translation, History and Literature.	Latin Composition and Sight.	Latin Composition, Sight Translation, History and Literature.
Saturday ..25	9	French.	French Texts.	French.	French Books.	French. Botany.
	2.30	French.	German Texts.	French. Semitics.	French Composition and Sight.	German.
Monday.....27	9	Algebra.	Geometry. Trigonometry (Minor), 11 to 12.30	Algebra.	Animal Biology. Analytic Geometry. Rom. Hist. and Lit., 9-10.30. Greek Hist. and Lit., 10.30-12.	Mathematics.
	2.30	Trigonometry.	French Comp. and Sight.	Psychology.	German Books. Plant Biology. Logic.	Chemistry.
Tuesday.....28	9	Greek Books. German.	Greek Books. Algebra and Trigonometry.	Greek Books. Logic. German.	Greek Texts. Physics. Psychology.	Greek Books.
	2.30	Greek Composition, Sight Translation and History. German.	Greek Composition, Sight Translation and History. Algebra and Geometry (*minor*).	Greek Composition, Sight Translation and History. Animal Biology. German.	Chemistry. Greek Composition and Sight. Economics.	Greek Composition, Sight Translation, History and Literature.
Wednesday...29	9	Physics.	Theory of Equations. German Comp. and Sight.	Conics and Solid Geometry. Plant Biology.	Infinitesimal Calculus. German Comp. & Sight.	Political Economy.
	2.30	Geometry.	Physics.	Chemistry. History and Economics.	Economics. Modern History and English Comp. Philosophy. (Descartes).	Political Science.

* Periods for other subjects to be arranged at the time of the Examination.

EXAMINATION TIME TABLES.

Faculty of Arts.

Christmas Examination, 1909.

	First Year.	Second Year.	Third and Fourth Years.
Thursday, Dec. 16th ...A.M.	Mathematics	French.	Education; Geology.
" P.M.	Latin.	Chemistry; Hebrew; German.	History; Mathematics; German; Botany; Physics.
Friday, Dec. 17th.....A.M.	French.	Economics.	Economics; Latin; Chemistry; Hebrew; English.
" P.M.	English.	Latin.	Philosophy; French.
Monday, Dec. 20th.....A.M.	Physics.	Mathematics; Biology; Logic.	Political Science; Zoology.
" P.M.	Greek.	English.	Greek; Psychology; Mechanics.
Tuesday, Dec. 21st.....A.M.	German.	Greek.	Logic; English.
" P.M.	History.	History.	Astronomy.

EXAMINATION TIME TABLES.

Faculty of Arts.

Sessional Examinations, 1910.

Morning examinations commence at 9; afternoon examinations at 2.30.

Day and Date.	First Year.	Second Year.	Third and Fourth Years.
Friday, April 15th....P.M.			English Composition.
Monday, April 18th ...A.M.	Mathematics.	French.	Education; Geology; Sanskrit.
" P.M.	Mathematics.	French.	Education; Geology; Sanskrit.
Tuesday, April 19th....A.M.	Latin.	Chem.; Heb.; German.	Hist.; Math.; German; Botany; Physics.
" P.M.	Latin.	Chem.; Heb.; German.	Hist.; Math.; German; Botany; Physics.
Wednesday, April 20th. A.M.	French.	Economics.	Econ.; Latin; Chem.; Hebrew; English.
" P.M.	French.	History.	Econ.; Latin. Chem.; Hebrew; English.
Thursday, April 21st...A.M.	English.	Latin.	Philosophy; French.
" P.M.	English.	Latin.	Philosophy; French.
Friday, April 22nd....A.M.	Physics.	Mathematics; Zoology.	Political Science; Zoology.
" P.M.	History.	Mathematics; Botany.	Political Science; Zoology.
Tuesday, April 26th....A.M.	Greek.	English.	Greek; Psychology; Mechanics.
" P.M.	Greek.	English.	Greek; Psychology; Astronomy.
Wednesday, April 27th. A.M.	German.	Greek.	Logic; English; Comparative Philology.
" P.M.	German.	Greek.	Logic; English; Comparative Philology.

McGill University.

HISTORY AND CONSTITUTION.

Foundation and Early History.

Almost alone in this respect among Canadian colleges and universities, McGill University owes its origin to a private endowment. Its founder, the Hon. James McGill, from whom the University takes its name, was born on the 6th October, 1744, in Glasgow, Scotland, where he received his early education and training. Emigrating to Canada before the American Revolution, he engaged in the North-West fur trade, then one of the leading branches of business in Canada. Subsequently he settled in Montreal, and, in partnership with his brother, Andrew McGill, became one of its leading merchants, distinguished for his public spirit and his exertions for the advancement of the city. He was lieutenant-colonel, and subsequently colonel, of the Montreal City Militia, and in his old age, on the breaking out of the American war of 1812, he became brigadier-general, and was prepared to take the field in defence of his country. He also represented the West Ward of Montreal in the Provincial Legislature, and was afterwards a member of the Legislative and Executive Councils. Cultivating and enjoying the society of the few men of learning then in the colony, he took a special interest in the establishment of an educational system in the Province of Quebec. By his will, bearing date the 8th January, 1811, more than two years before his death, which happened on the 19th December, 1813, he bequeathed his property of Burnside and a sum of £10,000 in money to found a college in a provincial university, the erection of which had already been provided for by the generosity

of the British Government. Three leading citizens of Montreal were among the trustees appointed under his will, who were directed to convey the subject property of the bequest to the Royal Institution for the Advancement of Learning, a body which, in 1802, had been incorporated by the Legislature "for the establishment of free schools and the advancement of learning" in the Province of Quebec. The conditions upon which the property was to be transferred to the Royal Institution for the Advancement of Learning were, mainly, that that Institution should, within ten years after the testator's decease, erect and establish on his Burnside estate "a University or College, for the purposes of education and the advancement of learning in this Province," and that the college, or one of the colleges in the University, if established, should "be named and perpetually be known and distinguished by the appellation of McGill College." Owing to persistent opposition by the leaders of one section of the people to any system of governmental education and to the refusal by the Legislature to make the grants of land and money which had been promised, the proposed establishment of the provincial university by the British Government was abandoned.

In so far as the McGill College was concerned, however, the Royal Institution at once took action by applying for a Royal Charter. Such a charter was granted in 1821, and the Royal Institution prepared to take possession of the estate. But, owing to protracted litigation, this was not surrendered to them till 1829. Commencing then the work of teaching with two faculties, Arts and Medicine, the record of the first thirty years of the University's existence is an unbroken tale of financial embarrassment and administrative difficulties. The charter was cumbrous and unwieldy, and unsuited to a small college in the circumstances of this country, and the University, with the exception of its medical faculty, became almost extinct. But after thirty years the citizens of Montreal awoke to the value of the institution which was struggling in their midst. Several gentlemen undertook the responsibility of its renovation, and, in 1852, an amended charter was secured. The

Governor-General of Canada for the time being, Sir Edmund Head, became interested in its fortunes, and in 1855, with the advent of a new Principal, an era of progress and prosperity began.

Government of the University.

By the amended Charter "the Governors, Principal, and Fellows" of the University are constituted a body politic and corporate, with all the usual rights and privileges of corporate bodies. The supreme authority, however, is vested in the Crown, and is exercised by His Excellency the Governor-General of Canada, for the time being, as **Visitor.** This is a special and important feature of the constitution, for, while it gives the University an imperial character and removes it at once from any merely local or party influence, it secures the patronage of the head of the political system of the country.

The **Governors** of the University are the members of the Royal Institution for the Advancement of Learning, above mentioned, and in them are vested the management of finances, the passing of University statutes and ordinances, the appointment of professors, and other important duties. Their number is limited to fifteen, and vacancies are filled by the nomination of the remaining members, with the approval of the Visitor. The President of the Board of Governors is, *ex-officio,* Chancellor of the University.

The **Principal** is the academic head and chief administrative officer. He is appointed by the Board of Governors (of which body he is a member, *ex-officio*). He also holds the office of Vice-Chancellor of the University.

The **Fellows** (53 in number), are selected with reference to the representation of all the faculties and departments of the University, and of the graduates, affiliated colleges, and other bodies.

The Governors, Principal and Fellows, together constitute the **Corporation,** the highest academical body. Its powers are fixed by statute, and include the framing of all regulations

touching courses of study, matriculation, graduation, discipline and the granting of degrees.

The Principal, the Deans of the several Faculties, the Professors and Associate Professors, and other members, not exceeding ten in number, of the teaching staff, constitute the **Academic Board** of the University, with the duty of considering such matters as pertain to the interests of the University as a whole, and of making recommendations concerning the same.

RELATION TO OTHER INSTITUTIONS.

Incorporated and Affiliated Colleges.

Students in Affiliated Colleges are matriculated in the University, and may pursue their course of study in the Affiliated College, or in part in the Affiliated College, and in part in McGill College, as the case may be, and may come up to the University examinations on the same terms as the students of McGill College.

A certificate of "Literate in Arts" will be given to students of Affiliated Colleges who have completed two years' study in one of these Colleges, as undergraduates of McGill University, and have passed the prescribed examinations.

Macdonald College.—This is an incorporated college of the University, situated at Ste. Anne de Bellevue, about twenty miles from Montreal. Courses leading to the Bachelor's and Master's Degrees in Agriculture are under the control of the Corporation of McGill University; all the short term courses in Agriculture, as well as the courses in Domestic Science, are under the direction of the Macdonald College Committee; and those for diplomas to teach in the Province of Quebec are subject to the immediate supervision of the Teachers' Training Committee. A description of the College buildings and full information as to courses, terms of admission, fees, etc., are given under "Macdonald College."

The McGill University College of British Columbia, Vancouver, B.C., is a college of the University, at present conducting courses up to the end of the Third Year in the Faculty of Arts and to the end of the Second Year in the Faculty of Applied Science. Detailed information is given in another part of the Calendar (see index).

Victoria College, Victoria, B.C., is amalgamated with the McGill University College of British Columbia in so far as regards the work of the first two Years in Arts and is thus an affiliated college of the University. The Principal of the College, from whom full information can be obtained, is S. J. Willis, B.A.

Mount Allison and Acadia Universities, are also affiliated to the extent that students who have completed the two Year Course in Engineering given by these universities are admitted directly to the Third Year in the Faculty of Applied Science of McGill University

Affiliated Theological Colleges.

Students of the following affiliated Theological Colleges may attend the courses of study in Arts, either as undergraduates or as partial students, with such facilities in regard to exemptions as may be agreed on:—

The Congregational College of Canada, Montreal.—Principal, Rev. E. M. Hill, D.D., 58 McTavish St.

The Diocesan College of Montreal.—Principal, Rev. E. I. Rexford, M.A., LL.D., 201 University St.

The Presbyterian College, Montreal, in connection with the Presbyterian Church in Canada.—Principal, Rev. John Scrimger, M.A., D.D., 69 McTavish St.

The Wesleyan College of Montreal.—Principal, Rev. W. I. Shaw, D.D. LL.D., 228 University St.

Calendars of each of the above Colleges and all necessary information may be obtained on application to the Principals.

Affiliation to Other Universities.

The University is affiliated to the universities of Oxford, Cambridge and Dublin, under conditions which allow an undergraduate who has taken two years' work, and has passed the Second Year sessional examination in Arts, to pursue his studies and take his Degree at any of those universities on a reduced period of residence.

FACULTIES AND COURSES.

The educational work of the University is carried on in McGill College, the Royal Victoria College for Women, and other University Buildings in Montreal; and also in Macdonald College at Ste. Anne de Bellevue; the McGill University College of British Columbia, Vancouver, B. C.; and in the Affiliated College at Victoria, B. C.

The several courses offered by the University are as follows:—

In the Faculty of Arts.

For the Degree of Bachelor of Arts.
" " " " Bachelor of Science.
" " Diploma of Commerce.

In The Faculty of Applied Science.

For the Degree of Bachelor of Architecture (B. Arch.)

Courses leading to the Degree of Bachelor of Science (B.Sc)., in the Departments of Chemistry, Chemical Engineering, Civil Engineering, Electrical Engineering, Mechanical Engineering, Metallurgy, Metallurgical Engineering, Mining Engineering, and Transportation (Railways).

In The Faculty of Law.

For the Degree of Bachelor of Civil Law (B. C. L.)

In The Faculty of Medicine.

For the Degree of Doctor of Medicine and Master of Surgery (M.D., C.M.)

Course in Dentistry for the Degree of Doctor in Dental Science (D.D.S.)

Course for the Diploma of Public Health.

In the Graduate School.

Courses leading to the Degrees of Master of Arts, Master of Science and Doctor of Philosophy.

In Macdonald College.

For a Bachelor's Degree in Agriculture.
Other courses in the School of Agriculture.
Courses in the School of Household Science.
The several courses for Teachers' Diplomas.

In the Conservatorium of Music.

For the diploma of Licentiate in Music, and other diplomas of a special character.

Courses leading to the Degrees of Bachelor of Music (Mus. Bac.) and Doctor of Music (Mus. Doc.).

General.

Military Courses for Commissions in the British Army and in the permanent force in Canada.

The Faculty of Arts.—The undergraduate courses of study which lead to the Degree of B.A. or of B. Sc., extend over four sessions of about seven and a half months each. For further particulars regarding these courses see pages 109 *et seqq.* In the Second, Third and Fourth Years extensive options are provided, and certain exemptions are also allowed to professional students.

The undergraduate course in Arts can be taken along with the undergraduate course in Medicine, in seven years, or with that in Applied Science in six years. (See page 106.)

The Degrees of B.A. and B.C.L. can be obtained in five years, but only by students who give their whole time to their College work. There is also a six year double course in Arts and Law. (See page 108.)

A certificate of Literate in Arts is given along with the Degree in Medicine, Applied Science, or Law, to candidates

who have completed two years in Arts before entering the professional Faculty.

This certificate of Literate in Arts is also given to students of Affiliated Colleges who have completed the work of the first two years and have passed the prescribed examinations, as undergraduates of McGill University.

The Diploma of Commerce can be obtained after a two years' period of study. For fuller particulars see page 171.

The courses in Arts are open to women (who are educated mainly in separate classes) on equal terms with men. Residential accommodation for women students is provided in the Royal Victoria College.

Holders of the Degree of B.A. from this University are admitted to the study of the learned professions, without preliminary examination, in the Provinces of Canada, and in Great Britain and Ireland, and elsewhere. They will also be granted Academy diplomas to teach in the Province of Quebec, provided they have passed an examination in pedagogy and have taught, under supervision, for the time required by law.

The Faculty of Applied Science.—The undergraduate courses of study, one leading to the Degree of B.Arch. and the others to that of B.Sc., extend over four sessions, averaging (with summer sessions) about eight months each, and provide a thorough professional training in the Departments mentioned above. For further information see pages 182 *et seqq.*

The undergraduate course in Arts can be taken along with the undergraduate course in Applied Science in six years. (See page 106.)

The Faculty of Law.—The undergraduate course extends over three sessions of eight months each, and leads to the Degree of Bachelor of Civil Law (B.C.L.). Full particulars are given on pages 257 *et seqq.*

The undergraduate course in Arts can be taken along with the undergraduate course in Law in five years, but only by students who give their whole time to their College work. A

double course in Arts and Law, extending over six years, has also been provided. For particulars, see page 108.

The Faculty of Medicine.—The undergraduate course of study leading to the Degree of M.D., C.M., extends over five sessions of eight months each, and that leading to the Degree of Doctor in Dental Science extends over four sessions of the same length. For further information see pages 275 to 314.

The undergraduate course in Arts can be taken along with the undergraduate course in Medicine in seven years. (See page 107.)

The course in Public Health and Sanitary Science is open to those only who have graduated in Medicine, or who possess some other qualification for practice. Generally speaking, it occupies a period of three months.

The Faculty of Agriculture. — The course of study for undergraduates extends over four sessions of about seven months each, and leads to a Bachelor's Degree.

The course in Agriculture is given in Macdonald College at Ste. Anne de Bellevue and aims to provide a thorough theoretical and practical training in the several branches of the science. For fuller information regarding this and other courses in Agriculture see under "Macdonald College."

The Course in Architecture.—This occupies a period of four years and leads to the Degree of Bachelor of Architecture. The work of the First Year is divided between the Faculties of Arts and Applied Science. During the last three years studies are carried on in Architecture, Building Construction, Ornament and Decoration, Drawing, Designing, Planning, Professional Practice, Sanitation and Heating, Structural Engineering, etc.

The Course for the Diploma of Commerce.—This course is not designed merely to impart instruction of a purely

technical character. Its object is rather to develop capacity than to give special information. Nevertheless, stress is laid upon those subjects, a knowledge of which is a necessity for business men, and the character of the instruction and the class methods adopted are specially suited to the end in view. Requirements for entrance are given on page 23 and a list of the subjects taken up during the two years of the course will be found on page 172.

The School for Teachers in Macdonald College.—This institution provides a practical and thorough training in the art and science of teaching. It is, especially, a training school for those who wish to obtain Elementary or Model School diplomas to teach under the Protestant Committee of the Council of Public Instruction, Quebec. For full information as to requirements for admission and the programme of studies for the several diplomas, application should be made to the Head of the School.

Holders of Model School diplomas from this School are encouraged by the offer of bursaries (see page 46) to enter the classes in the Faculty of Arts for the Academy diploma and for the Degree of B.A.

The School of Household Science in Macdonald College. The courses offered are as follows:—

(a) Short courses of three months each.
(b) A one year Home-Maker course.
(c) A two year course leading to a diploma.

The Conservatorium of Music.—Thorough instruction in all branches of music is given in the Conservatorium of Music established a few years ago in connexion with the University. Students are admitted as *Regular Students* taking an organized course leading to the diploma of Licentiate in Music or the Degree of Bachelor of Music (see page 179), or as *Partial Students*, who, under certain conditions and after examination, can obtain certificates bearing the imprimatur of the Uni-

versity. Full details can be obtained on application to the Secretary of the McGill Conservatorium of Music, 323 Sherbrooke St. W., Montreal.

The Course in Military Science.—This course can be taken by undergraduates in Arts, Applied Science and Law. The subjects and the number of lectures given in each are as follows:—

GROUP A. (1) Military History and Strategy, 28 lectures.
(2) Tactics, 28 lectures.

GROUP B. (1) Military Engineering, 20 lectures, (reduced by one-third in the case of graduates in Applied Science).
(2) Military Topography, 20 lectures, (reduced by one-third in the case of graduates in Applied Science).

GROUP C. (1) Military Law, 12 lectures.
(2) Military Administration, 12 lectures.

The examination may be taken in two parts, Groups A and C or Groups B and C at one time and the remaining Group at another. On passing this examination and obtaining the Degree of B.A., B.Sc., or B.C.L. candidates are eligible for nomination to commissions in the British Army, or the permanent force in Canada. Fuller particulars are given on page 175.

The Graduate School.—In the Graduate School, courses of instruction are provided leading to the following Degrees in course:—Master of Arts (M.A.); Master of Science (M.Sc.); and Doctor of Philosophy (Ph.D.). Full information as to admission and departments in which studies are offered will be found under "Graduate School" (see index), and can also be obtained from Dr. F. D. Adams, Chairman of the Committee on Graduate Studies.

To this Committee are also submitted all applications for the Degrees of D.Sc. and D. Litt, and these Degrees are granted only on their recommendation.

DEGREES.

The Degrees conferred by the University (as may be gathered from the foregoing information) are as follows:— B.A., B.Sc., B. Arch., B.C.L., M.D. C.M., D.D.S., D.C.L., M.A., M.Sc., Ph.D., D.Sc., D. Litt., and LL.D. (Honorary.) For further particulars as to requirements for each see page 73.

CLASSES OF STUDENTS.

There are four classes of students in the University:—

(1) Graduates—students who have previously obtained an ordinary Degree at McGill, or elsewhere, and who are now pursuing courses for the Master's Degree (in Arts or Applied Science), or for the Degree of Ph. D.

(2) Undergraduates—students who have passed the matriculation examination and who are now pursuing a course leading to a Degree or Certificate in one or other of the several Faculties. In order to obtain undergraduate standing, a candidate must have passed the matriculation examination of the University or some other examination accepted in lieu thereof (see page 21).

(3) Conditioned Students—those with defective entrance qualifications who are pursuing a full undergraduate course of study and at the same time seeking to obtain undergraduate standing. The conditions must be removed before the student can be admitted to the Second Year. (See Reg. 7, page 20.)

(4) Partial Students—comprising all those who, not belonging to one of the above classes, are taking a partial course of study in the University. Except as provided below, such students may, subject to the approval of the Professor, attend any class without previous examination.

Persons who wish to take a partial course in the First Year of the Faculty of Arts must, if under the age of eighteen years, first present to the Dean certificates of having taken a satisfactory course of school instruction. In order to obtain admission to the classes in French, intending students must

have passed the University matriculation examination, or an equivalent examination, in that subject.

Partial students who subsequently obtain undergraduate standing by passing the matriculation examination may, as undergraduates, be exempted, at the discretion of the Faculty, from any particular course or courses of lectures which they may have attended as partial students and in which they have passed the sessional examinations.

Partial students who intend to proceed to a Degree will be expected to employ the greater part of their time in qualifying themselves to pass the matriculation examination. (The classes provided for the instruction of conditioned students in matriculation subjects will be available also for partial students who are so qualifying.) In this connection the several Faculties are expected to discourage partial students who are qualifying for matriculation, from attempting more work than they are able to undertake, consistently with the requirements of the matriculation examination, and the Secretary of the Matriculation Board will, after the September examination, send to the Dean of each Faculty a report of the standing of those candidates who have failed in the matriculation examination, for the guidance of the Faculties in connection with the admission of partial students to the First Year.

Except under special circumstances, no student under the age of sixteen is admitted to the First Year courses in Arts, Applied Science or Medicine, or under the age of seventeen to the Second Year, and no student under the age of seventeen is admitted to the course in Law.

All students are required to attend lectures at the University buildings in Montreal, at Macdonald College (for the courses in Agriculture), or at one of the Affiliated Colleges.

THE ACADEMIC YEAR.

The University Year or Session is divided into two terms, the first extending to the Christmas vacation, and the second from the expiry of the Christmas vacation to the date appointed for the meeting of Convocation for the conferring of Degrees.

The Session 1909-1910 will commence in all Faculties on Friday, October 1st, 1909. It will end in the Faculty of Medicine about June 1st, 1910, and in the other Faculties on Wednesday, May 11th, 1910.

Two matriculation examinations (for entrance to all Faculties) will be held in 1909, the first commencing on Monday, June 14th, and the second on Thursday, September 23rd.

Second Year Exhibition, Third Year Scholarship and Supplemental Examinations in Arts will begin on Thursday, September 23rd. (For time table, see first part of Calendar.)

Supplemental examinations in Applied Science will be held as follows:—

For students attending the Survey School—September 1st to 4th.

For students not in attendance at the Survey School—September 23rd to 28th.

The field work in Surveying for 1909 will commence on Monday, September 6th. The summer school in Mining is always held at the end of each session.

The annual University Lecture will be delivered on Wednesday, October 6th, 1909.

Summer Classes. During the months of May and June, a series of Summer Classes is conducted, intended mainly, in the first instance, to meet the requirements of students in the first two years of their course. The subjects offered in the Faculty of Arts are English, Latin, Greek, Mathematics,

Physics, Chemistry, Logic, French, German, Elementary Animal Biology and Botany. The fees payable are stated on page 66. Classes will also be conducted in the following subjects of the First Year in the Faculty of Applied Science, if a sufficient number of students apply: Descriptive Geometry, Freehand Drawing, Lettering, Mathematics, Physics, Shopwork. For fees, see page 68.

A Summer School for the training of Librarians will be held during the month of June, 1909. Full information may be obtained from Mr. C. H. Gould, B.A., University Librarian.

For compulsory summer work in the Faculty of Applied Science see page 185.

ENTRANCE REQUIREMENTS.

All matters regarding matriculation are under the control of a Matriculation Board, which is constituted as follows:

(a) The Heads of all Departments which may include matriculation subjects, *ex officio.*

(b) The Deans of the several Faculties and the Registrar of the Faculty of Medicine.

(c) Such other members of the teaching staff (or others), as may be appointed annually by Corporation, the Faculty of Arts being given the power, in any emergency, to make an appointment, *pro tempore.*

I. Regulations.

1. Matriculation examinations (for entrance into all Faculties) are held only in June and September—in June at McGill College and (on application) at local centres; in September, at McGill College; the McGill University College of British Columbia; and the affiliated College in Victoria, B.C.

ALL INQUIRIES RELATING TO THE EXAMINATIONS SHOULD BE ADDRESSED TO THE REGISTRAR OF THE UNIVERSITY.

For the convenience of candidates in Great Britain, who are not otherwise qualified for entrance, an examination will be held regularly in London, Eng., each year, commencing on, or about, the 12th of June. Full information regarding the exact date and place of the examination, fee, etc., may be obtained from Rev. T. C. Fry, D.D., the School House, Berkhamsted, Herts., Eng., who has kindly undertaken to act as the Honorary Representative of the University in England.

2. Every candidate for examination is required to fill up an application form and return the same with the necessary fee (for which see page 64), one month before the examination begins. Blank forms may be obtained from the Registrar.

No applications for examination at outside centres in June will be received after May 15th.

3. In order to obtain an examination at a local centre, any Headmaster or other person must, before May 1st, submit to the Registrar the name of some suitable person, preferably a university graduate, who is willing to act as deputy examiner, i.e., receive the questions, hold the examinations and forward the answers to Montreal. The University will be responsible for no other local expenses than the payment of the deputy-examiners.

† 4. The matriculation examination may be taken in two parts, the Preliminary Division comprising (1) English Composition and Dictation, (2) English Grammar, (3) History and Geography, and (4) Arithmetic, and a candidate who passes on any three of the four papers set in this Division, at one time,* will be allowed to count to his credit the subjects covered thereby, and the remaining paper may be taken separately, or when he presents himself for examination in the Final Division. Those who fail in two or more papers will be required to take this part of the examination over again.

† 5. Candidates for examination in the Final Division alone who fail in not more than two subjects at one time* may complete the requirements by passing in the subject or subjects in which they failed, at any matriculation examination held within the same or the following year.

† 6. The examination may also be taken as a whole (without reference to Divisions), in which case those who have

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† In 1910, the division of subjects into Preliminary and Final will be done away with and regulations 4, 5 and 6 will be replaced by the simple statement, that a candidate may take the examination in parts, credit being given for any five subjects passed at one time.

There will be one paper of two hours on English Composition and Spelling will be tested by the papers in Composition and Literature.

A new regulation has also been adopted and will be in force in 1910, to the effect that a candidate will be exempted from the formal examinations in English Grammar, History and Arithmetic on presentation of a certificate from the Principal of an approved school, or other recognized official authority, setting forth that the candidate has passed satisfactory examinations in these subjects fully up to the requirements prescribed for matriculation.

*Subjects passed at the June and September examinations of the same year will be considered as having been passed "at one time," Candidates, therefore, who have failed at the June examination and present themselves in the following September will not be required to take the subject in which they passed in June.

obtained pass standing in at least half of the required subjects for entrance to any Faculty, at one time,* may complete the matriculation examination by passing in the remaining subject or subjects at any examination held within the same or the following year.

7. Candidates who at the September examination fail in a small part only of the whole examination may, if their general standing is sufficiently high, be allowed to enter the First Year as conditioned students. Those who are conditioned in a language must attend a special tutorial class during their first session, for which a fee of $10 is exigible. Any student, so conditioned, who fails to attend this class with regularity, will not be allowed to present himself for examination. The standing of a conditioned student will not as a rule be granted to any who have not presented themselves for examination in September, nor to those who have not shown sufficient knowledge of the subject or subjects in which they failed to justify the examiners in making a favorable recommendation. Conditioned students can obtain full undergraduate standing by passing at a subsequent June or September matriculation examination in the subject or subjects in which they failed, and will not be permitted to enter the Second Year of their course of study until they have satisfied all matriculation requirements.

8. When two or more books or subjects are prescribed for one examination it is necessary to pass in each.

9. A candidate in order to pass must obtain at least 40 per cent. of the total number of marks allowed for each subject.

10. In view of the precautions taken to prevent mistakes, no request for the re-examination of a paper shall be granted except on payment of a fee of one dollar. Should the appeal from the examiner's valuation be sustained the fee will be returned. No appeal from the valuation of a paper written

*Subjects passed at the June and September examinations of the same year will be considered as having been passed "at one time." Candidates, therefore, who have failed at the June examination and present themselves in the following September will not be required to take the subject in which they passed in June.

at the June examination will be entertained after September 1st, following.

11. Certificates of having passed the following examinations will, if submitted to the Registrar, be accepted *pro tanto* in lieu of the matriculation examination, *i.e.*, in so far as the subjects and standard are, to the satisfaction of the Board of Matriculation examiners, the same as or equivalent to those required for the matriculation examination of this University. Candidates offering certificates which are not a full equivalent will be required to pass the matriculation examination in such of the required subjects as are not covered thereby:—

Province of Quebec.

The University School Preliminary Examination and the Departmental Examination of Grade I Academy.

The University School Leaving Examination.

The Examination for the Model School Diploma, under certain conditions.

Province of Ontario.

The Junior and Senior Teachers' Certificate Examinations.

Junior and Senior Matriculation Examinations.

Province of New Brunswick.

The Examinations for Superior and Grammar School Licences.

Province of Nova Scotia.

The Leaving Examinations, Grades XI and XII.

Province of Prince Edward Island.

The Examination for First and Second Class Teachers' Licences.

The First and Second Year Examinations of Prince of Wales College.

Province of British Columbia.

The Junior, Intermediate and Senior Grade Examinations

Alberta and Saskatchewan.

The Departmental Examinations for Standards VII and VIII.

Newfoundland.

The Intermediate and Associate Grade Examinations.

Great Britain.

The School and Matriculation Examinations of the Universities of Oxford, Cambridge and London, and the Leaving Examinations of the Scotch Education Department.

Applications for exemption from the matriculation examination, based upon certificates of having passed examinations other than those above mentioned, will be considered as occasion may require by the Board of Matriculation Examiners. Every such application must be accompanied by certificates and full particulars, and should be addressed to the Registrar.

II. Fees.

See page 64.

III. Subjects of Examination.

FACULTY OF ARTS.

(For candidates intending to take the B.A. course.)

PRELIMINARY DIVISION.

(See Regulation 4, page 19.)

English Composition and Dictation.
English Grammar.
History and Geography.
Arithmetic.

FINAL DIVISION.

1. English Literature.
2. Latin *or* Greek.
3. One of the following:
   Greek *or* Latin (the one not already chosen),
   French, German.
4. Algebra, Part I.
5. Geometry, Part I.
6. One of the following:
   Physiography, Botany, Chemistry, Physics, a Language not already chosen.

(*For candidates intending to take the B.Sc. course in Arts.*)

PRELIMINARY DIVISION.

As above.

FINAL DIVISION.

1. English Literature.
2. French.
3. German.
4. Algebra, Part I.
5. Geometry, Part I.
6. One of the following:
   Physiography, Botany, Chemistry, Physics, Latin, Greek.

Candidates who intend ultimately to proceed to the study of Medicine are reminded that for Medical Registration it is necessary to take Latin.

(*For candidates entering on the course for the Diploma of Commerce.*)

One of the following examinations:—

(1) The ordinary matriculation examination for the B.A. Course.

(2) The ordinary matriculation examination for the B.Sc. Course.

(3) An examination consisting of (a) the Preliminary subjects of the present matriculation examination and (b) the following Final subjects, viz:

English Literature.
French, including oral examination (pass standard 50 per cent.)
Algebra, Part I.
Geometry, Part I.
Book-Keeping.
One of the following, viz:
Physiography, Botany, Chemistry, Physics.

Holders of Model School diplomas who are certified by the Head of the School of Education of Macdonald College to have taken 75 per cent. of the total marks at their final examinations, with not less than 50 per cent. of the marks in (1) Mathematics, (2) French, and (3) Latin or Greek, respectively, will be admitted without further examination as undergraduates of the First Year in Arts.

Nine Exhibitions, ranging in value from $100 to $200 each, will be awarded on the result of the matriculation examination for entrance to the Faculty of Arts on the subjects of the Final Division, in June, 1909, and also in June, 1910; and five, each of the value of $150, and three Scholarships of the annual value of $150 each, tenable for two years, will be awarded on the result of an examination on special work. Full particulars are given on pages 43-47.

In addition to the above, an Exhibition of the value of $50.00, tenable for one year, will be awarded in 1909 to the candidate who takes the highest standing in the matriculation examination for entrance on the course for the Diploma of Commerce.

FACULTY OF APPLIED SCIENCE.

(For all courses leading to the Degree of B.Sc. in Applied Science.)

PRELIMINARY DIVISION.

(See Regulation 4, page 19.)

English Composition and Dictation.
English Grammar.
History and Geography.
Arithmetic.

FINAL DIVISION.

1. English Literature.
2. One of the following:
   French, German, Latin, Greek.
3. Algebra, Parts I and II.
4. Geometry, Parts I and II.
5. Trigonometry.
6. One of the following:
   Physiography, Botany, Chemistry, Physics, a Language not already chosen.

(For the course leading to the Degree of B. Arch.)

PRELIMINARY DIVISION.

As above.

FINAL DIVISION.

1. English Literature.
2. French.
3. One of the following:
   Greek, Latin, German, Physiography, Botany, Chemistry, Physics.
4. Algebra, Part I.
5. Geometry, Part I.
6. Freehand and Geometrical Drawing.

French-speaking candidates for matriculation in this Faculty will be allowed to take examinations in French equi-

valent to those required in English. (For particulars, see page 32.)

The Canadian Railway Club has established a Scholarship, to be competed for by sons of members of the club, and to be awarded to that one who obtains the highest standing at the matriculation examination for entrance on the B.Sc. course in Applied Science.

Scholarships covering four years' tuition in the Faculty of Applied Science are also awarded annually on the result of the matriculation examination, by the Grand Trunk and Canadian Pacific Railway Companies. These are open for competition to apprentices and other employees of the Companies under twenty-one years of age, as well as to minor sons of employees. For full particulars as to number of scholarships offered, conditions, etc., application should be made, in the case of the Grand Trunk Railway, to Mr. R. S. Logan, Assistant to the Second Vice-President, G.T.R. Offices, Montreal; and, in the case of the Canadian Pacific Railway, to Mr. C. H. Buell, office of the President, C.P.R. Offices, Montreal.

FACULTY OF MEDICINE.

PRELIMINARY DIVISION.

(*See Regulation* 4, *page* 19.))

English Composition and Dictation.
English Grammar.
History and Geography.
Arithmetic.

FINAL DIVISION.

1. **English Literature.**
2. **Latin.**
3. **Algebra, Part I.**
4. **Geometry, Part I.**
5. **Chemistry.**
6. **Physics.**
7. One of the following:
   Greek, French, German.

In addition to the certificates mentioned on page 21, the following are accepted in lieu of the matriculation examination for entrance in Medicine, provided they cover Latin:

The Degree of Bachelor of Arts obtained from any recognized university.

A certificate of having passed the examination of a Provincial Medical Council.

In the case of candidates from the United States, a certificate of having passed a State or University examination fully equivalent to the matriculation examination required for entrance in this University.

The examination requirements for those who intend to practise Medicine in any of the Provinces of Canada will be learned by corresponding with the Registrars of the several Provincial Medical Councils. (For names and addresses see page 276).

FACULTY OF LAW.

PRELIMINARY DIVISION.

(*See Regulation* 4, *page* 19.)

English Composition and Dictation.
English Grammar.
History and Geography.
Arithmetic.

FINAL DIVISION.

1. **English Literature.**
2. **Latin.**
3. **French.**
4. **Algebra, Part I.**
5. **Geometry, Part I.**
6. One of the following:
   Physiography, Botany, Chemistry, Physics, Greek, German.

Candidates must reach a high standard in Latin and French. In addition to those who qualify on the certificates men-

tioned on page 21, Bachelors of Arts, Science, or Letters of any Canadian or British University (see R.S.Q., 3503a) are admitted without examination.

No candidate domiciled in the Province of Quebec shall be admitted as an undergraduate in the Faculty of Law who shall not, in addition to other matriculation requirements, possess an adequate knowledge of French. Every candidate for admission as an undergraduate, whether exempt from the matriculation examination or not, shall be specially examined in this subject by an examiner appointed by Corporation, on the recommendation of the Matriculation Board, before being allowed to enter, and shall not be considered to possess an adequate knowledge unless he can speak the language with fair fluency and can translate with ease a passage of English into French.

Candidates who intend to practise Law or to be admitted to the notarial profession in the Province of Quebec are referred to the statutory requirements, as shown on page 271 under Faculty of Law. If they are not graduates they should pass the examination for admission to study required by the Council of the Bar or by the Board of Notaries, as the case may be, before seeking to matriculate. In that case they will be matriculated without examination.

FACULTY OF AGRICULTURE.

(*For the course leading to a Bachelor's Degree*).

A matriculation certificate for entrance to any other Faculty of the University will be accepted. A regular examination has also been arranged for. The subjects will be announced later.

(*For the one and two-year courses.*)

1. English Composition and Dictation.
2. English Grammar.
3. Arithmetic.
4. History and Geography.

DEPARTMENT OF MUSIC.

(*For the Course leading to the Degree of Bachelor of Music*)

English (Dictation, Composition, Grammar and Literature.)
British History.
Elementary Mathematics.
French *or* **German** *or* **Italian.**
Rudiments of Music (musical intervals, scales, clefs, time signatures, construction of chords, elementary harmony to chord of dominant seventh.)

IV. Requirements in each Subject.

PRELIMINARY DIVISION.

English Composition and Dictation.

FOR COMPOSITION.—Candidates will write a short essay on a subject to be given at the time of the examination.

English Grammar.

Main facts in connection with the history of the language; etymology and syntax. A good knowledge of parsing and analysis is essential. West's English Grammar for Beginners is recommended as a text-book.

History and Geography.

Candidates will be required to show a somewhat intimate acquaintance with the history of England, from 1485 to the present time. While any text-book written for the upper forms of schools may be used in preparation for the examination, Gardiner's Outline of English History (Longmans) is recommended.

The Geography required will be that relating to the History prescribed.

Arithmetic.

All the ordinary rules, including square root, and a knowledge of the metric system.

FINAL DIVISION.

English Composition and Literature.

COMPOSITION.—As in Sykes's Elementary Composition, with an essay on some subject connected with the works prescribed in Literature. Frequent practice in composition is essential.

LITERATURE.—1909 and 1910—Any two of the following: Shakespere's Merchant of Venice; Nineteenth Century Prose (ed. Cunliffe), pp. 1-126, with notes (Copp, Clark Co.); Poems of the Romantic Revival (Copp, Clark Co.), pages 1 to 82 with notes; Tennyson's Select Poems (editor Alexander, Copp, Clark Co.).

In 1911 Julius Cæsar will be substituted for The Merchant of Venice. The other requirements will remain as above.

An alternative paper will be set on the work specified in English for the Junior matriculation examination of the Province of Ontario.

Greek.

For 1909 and 1910—

TEXTS.—Xenophon, Anabasis, Book I, Chaps. 1 to 8, or Farnell's "Tales from Herodotus" (Macmillan's Elementary Classics), Chaps. VIII to XVI.

GRAMMAR.—Knowledge of grammar will be tested by translation and composition, and by grammatical questions based on the specified texts.

TRANSLATION AT SIGHT from Greek into English.

COMPOSITION.—Translation into Greek of detached English sentences and easy narrative based on the prescribed texts.

Two papers will be set:—(1) Translation at sight and composition; (2) Translation from and grammatical and other questions based on the prescribed texts. No candidate will be allowed to pass who fails on paper (1).

Alternative questions will be set on the work prescribed in Greek for the Junior matriculation examination of the Province of Ontario, if this differs from that specified above.

At the September examination other texts equivalent to those specified may be accepted, if application be made to the Registrar at least one month before the date of the examination.

Latin.

For 1909 and 1910.—

TEXTS.—Cæsar, De Bello Gallico, Book IV, Chap. 20 to the end, and Book V; Ovid, Stories from the Metamorphoses (as in Gleason's "A Term of Ovid," American Book Company), lines 1 to 670.

GRAMMAR.—Knowledge of grammar will be tested by translation and composition, and by grammatical questions based on the specified texts.

TRANSLATION AT SIGHT from Latin into English.

COMPOSITION.—Translation into Latin of detached English sentences and easy narrative based on the prescribed texts.

Two papers will be set:—(1) Translation at sight and composition, (2) Translation from and grammatical and other questions based on the prescribed texts. No candidate will be allowed to pass who fails on paper (1).

Note.—The Roman method of pronouncing Latin is recommended.

An alternative paper will be set on the Latin texts prescribed for the Junior matriculation examination of the Province of Ontario, if these differ from those specified above.

At the September examination other texts in Latin equivalent to those specified may be accepted, if application be made to the Registrar at least a month before the day of the examination.

French.

GRAMMAR.—A thorough knowledge of French accidence and of those points of syntax which are of more frequent occurrence in an ordinary easy style.

TRANSLATION AT SIGHT into English of a French passage of moderate difficulty.

TRANSLATION AT SIGHT into French of detached English sentences and an easy English passage. Material for such translation is selected with a view to testing the candidate's general knowledge of French Grammar. Candidates are required to pass in English-French translation as well as in the paper as a whole.

Books recommended.:—Bertenshaw's French Grammar (Longmans), and Cameron's Elements of French Prose Composition (Holt & Co.).

French-speaking candidates for matriculation in the Faculty of Applied Science will, if they offer French in place of English (see page 25), be examined in the following:—

FRENCH COMPOSITION, DICTATION, GRAMMAR (Larousse, Grammaire Supérieure).

FRENCH LITERATURE:—Corneille, Le Cid; Racine, Andromaque.)

FRENCH HISTORY:—(A. Rambaud, Histoire de la Civilisation Française.)

(*For Special Regulation re Matriculation in Law see page* 28.)

German.

GRAMMAR.—A thorough knowledge of German accidence and of the syntax of the topics treated in Lessons 46, 47, 57, 58, 59 and 60 of the Joynes-Meissner Grammar, and as presented in the Joynes-Meissner, Van der Smissen, or any other German Grammar of equally good standing.

TRANSLATION AT SIGHT into English of a German passage of moderate difficulty.

TRANSLATION INTO GERMAN of detached English sentences and of an easy English passage. Material for such translation is selected with a view to exemplifying the points of grammar included within the above limits.

TEXTS.—(Translation and grammatical study):—

For 1910 and 1911.—Volkmann, Kleine Geschicten (Heath & Co.); Stille Wasser, ed. Bernhardt (Heath & Co.). It is recommended that candidates should read the prescribed texts in the above order beginning in Volkmann's Kleine Geschicten with Himmelsschlüssel and Siebenmeilenstiefel.

The Ontario Junior matriculation requirements in German will be accepted in place of the texts specified above.

At the September examination other texts equivalent to those specified may be accepted, if application be made to the Registrar at least one month before the date of the examination.

Algebra, Part I.

Elementary rules, involution, evolution, fractions, indices, surds, simple and quadratic equations of one or more unknown quantities; as in Hall and Knight's Elementary Algebra to the end of surds (omitting portions marked with an asterisk), or as in similar text-books.

Algebra, Part II.

The three progressions, ratio, proportion, variation, permutations and combinations, binomial theorem, logarithms, theory of quadratic equations, as in the remainder of Hall and Knight's Elementary Algebra (omitting Chaps. 40 to 43 inclusive), or as in similar text-books.

Geometry, Part I.

Euclid's Elements, Books I, II, III, with easy deductions; or an equivalent.*

An alternative paper will be set on the Ontario Junior matriculation requirements in this subject.

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* The text-book at present in use in McGill University, and which is also authorized for use in the schools of the Province of Quebec, is Hall and Stevens' Euclid (Macmillan & Co.) Teachers will find Hall and Stevens' School Geometry a useful adjunct as far as regards practical applications.

Geometry, Part II.

Euclid's Elements, Books IV and VI, with definitions of Book V, and easy deductions; or an equivalent.*

Trigonometry.

Measurement of angles, trigonometrical ratios or functions of one angle, of two angles and of a multiple angle; as in Lock's Elementary Trigonometry, Chaps. I. to XII, Hall and Knight's Trigonometry, Chaps. I to XII, inclusive, omitting Chap. V; or as in similar text-books.

Physiography.

The elements of the science, as in Davis's Elementary Physical Geography, or any other text-book covering the same ground.

Botany.

Text-book to be selected.

Chemistry.

Elementary inorganic chemistry, comprising the preparation and properties of the chief non-metallic elements and their more important compounds, the laws of chemical action, combining weight, etc. The ground is simply and effectively covered by Remsen's "Elements of Chemistry," pp. 1 to 165 and 218 to 243. (Macmillan's Edition).

Physics.

Properties of matter; elementary mechanics of solids and fluids, including the laws of motion, simple machines, work, energy; fluid pressure and specific gravity; thermometry, the effects and modes of transmission of heat.

Text-books recommended—Gage's Introduction to Physical Science, 1902 edition (Ginn & Co.), Chaps. I to IV., inclusive; or Sinclair's Elementary Physics, Grades I, II and III, (Copp, Clark Co.)

* The text-book at present in use in McGill University and which is also authorized for use in the schools of the Province of Quebec, is Hall and Stevens' Euclid (Macmillan & Co.) Teachers will find Hall & Stevens' School Geometry a useful adjunct as far as regards practical applications.

V.—Dates of the Examinations.

The examinations in 1909 will commence on Monday, June 14th and on Thursday, September 23rd. Special arrangements may be made for the examination of candidates who are prevented by severe illness or domestic affliction from presenting themselves on the dates fixed.

For the September Time Table, see first part of Calendar.

VI.—Admission to Advanced Standing.

I.—*Entrance to Second Year.*

Admission to the Second Year in Arts is open, as a rule, only to undergraduates who have passed the First Year Sessional Examination in regular course, but in special cases, to be dealt with by the Faculty, candidates may be admitted directly to the Second Year without having passed through the curriculum of the First Year.

II.—*Admission Ad Eundem Statum.*

Any student of another university applying for exemption from any subject or subjects which he has already studied is required to submit with his application a complete statement of the course he has followed, together with a certificate of the standing gained therein.

The Faculty, if otherwise satisfied, will decide what examination, if any, or what conditions may be necessary before admitting the candidate.

Undergraduates in Arts of the Second and Third Years, or graduates in Arts of any university, entering the Faculty of Applied Science, may, at the discretion of the Faculty, be exempted from such lectures as they have previously attended as students in Arts.

REGISTRATION AND ATTENDANCE.

1. Candidates entering on a course of study in any Faculty, whether as undergraduates, conditioned students or partial students, are required to attend at the office of the University Registrar some time during the week preceding the opening day of the session, for the purpose of filling out in duplicate the usual form of registration, and of signing the following declaration in the Matricula or Register:—

"I hereby accept and submit myself to the statutes, rules, regulations and ordinances of McGill University, and of the Faculty or Faculties in which I am registered, and to any amendments thereto which may be made while I am a student of the University, and I promise to observe the same."

2. On the opening day of the session, or on one of the three preceding days, all students who have not registered under Regulation 1, shall register (as in the case of those entering for the first time) at the office of the University Registrar.

3. After registering the student will be given a registration ticket, on presentation of which to the different professors and lecturers whose classes he proposes to attend, his name will be entered on the class register. It will not be entered, nor will he be permitted to attend lectures, on any other condition.

In the case of students whose standing cannot be determined at the time of registration, special tickets will be issued, which will give them the right of admission to classes until such time as their status is ascertained.

4. Students are required to attend at least seven-eighths of the total number of lectures in any one course. Those whose absences exceed one-eighth of the total number of lectures in a course shall not be permitted to come up for the examination in that course.

Excuses on the ground of illness or domestic affliction shall be dealt with only by the Deans of the respective Faculties.

5. A record shall be kept by each Professor or Lecturer, in which the presence or absence of students shall be carefully noted. This record shall be submitted to the Faculty when required.

6. Credit for attendance on any lecture or class may be refused on the grounds of lateness, inattention, neglect of study, or disorderly conduct in the class room or laboratory. In the case last mentioned, the student may, at the discretion of the Professor, be required to leave the room. Persistence in any of the above offences against discipline shall, after admonition by the Professor, be reported to the Dean of the Faculty concerned. The Dean may, at his discretion, reprimand the student, or refer the matter to the Faculty at its next meeting, and may in the interval suspend from classes.

7. The following special regulations with regard to marking the attendance of students have been adopted by the Faculties of Arts and Applied Science:—

I.—*By the Faculty of Arts.*

Lectures shall commence at five minutes after the hour, on the conclusion of the roll-call, and students failing to answer to their names shall be marked "absent," unless they report themselves at the close of the lecture, in which case they shall be marked "late," and given such credit for attendance as the Faculty may deem advisable. Lectures shall end at five minutes before the hour.

II.—*By the Faculty of Applied Science.*

Lectures will commence at five minutes after the hour, on the conclusion of the roll-call. After the commencement of a lecture students are not allowed to enter, except with the permission of the Professor. If permitted to enter, they will, on reporting themselves at the close of the lecture, be marked "late," and given such credit for attendance as the Faculty may deem advisable. Lectures end at five minutes before the hour.

BOARD AND RESIDENCE.

No college residences have as yet been erected for men students, but dormitory accommodation for about 60 is provided in Strathcona Hall, the new McGill Y.M.C.A building, which was erected in 1905 by a committee of the Association. Full particulars concerning terms of residence, etc., may be obtained from the Secretary of the Association, 348 Sherbrooke St. West, Montreal, who will also make arrangements to have students who are strangers to the City met on arrival and helped to secure lodgings, if due notice is sent of the station and time at which they will arrive.

The erection of suitable University residential halls for men is contemplated in the near future.

Women students may board and reside either in private houses or in the Royal Victoria College, which provides, in addition to separate lecture rooms, residential accommodation for the women students of the University.

The expense of board and residence for the Session in the Royal Victoria College varies from $290 to $450, according to the position of the rooms. Students who do not remain over for the summer classes receive a deduction of $50 from the regular charge. Further particulars will be furnished by the Warden.

Good board and lodging can be obtained in private houses in the vicinity of the University buildings at a cost of from $19 and upwards per month; or, separately, board at $12 to $18 per month, rooms at $6 to $14 per month.

A list of suitable boarding and lodging houses, the sanitary conditions of which are required to be properly certi-

fied, is prepared annually, and may be obtained upon application to the Registrar of the University.

Excellent board is furnished in the McGill Union at a reasonable rate—fifteen dollars per month. The dining room, which is a special feature of the Union, will accommodate over 120 students at a time. There is also a lunch counter where meals are served *à la carte*. A description of the building will be found on page 319.

RAILWAY RATES.

(1). Rates for Summer Vacations.

After April 15th, and up to June 30th, single fare return tickets will be issued to students of McGill University, on presentation of standard vacation certificates signed by the Principal or Registrar of the University, between Montreal and any station on the Intercolonial Railway in Quebec, and to any point in the Maritime Provinces, which is reached by either the Intercolonial or the Canadian Pacific Railways. These tickets will be good for return up to October 1st.

(2) Special Rates for Students from the West.

Between any station in Canada on the Canadian Pacific Railway and Montreal, where the one way regular first-class rate is $20.00, or more, one way continuous passage tickets will be issued at half the regular first-class one way fare, minimum rate to be charged $20.00. For example, if the first-class one way rate is $50.00, $25.00 will be charged, but if the one way rate is less than $40.00, $20.00 will be collected. In order to obtain this rate, students going to attend the University for the first time will be required to present a certificate to that effect from parent, guardian clergyman or magistrate, but subsequently going or returning the certificates must be signed by the Principal or Registrar of the University.

EXHIBITIONS, SCHOLARSHIPS AND PRIZES.

I. SCHOLARSHIPS—GENERAL.

1. The Rhodes Scholarship.—This scholarship is of the annual value of £300 sterling and is tenable at the University of Oxford for three years. The scholar must be a British subject, must be over 19 and under 25 years of age, and must have reached at least the end of his Sophomore or Second Year in the University.

Rhodes Scholarships have been awarded as follows:—1904, Herbert J. Rose, B.A., and John G. Archibald, B.A.; 1905, Talbot M. Papineau, B.A.; 1906, Alexander R. McLeod, B.A.; 1908, Frank E. Hawkins, B.A.

The next election of a Rhodes Scholar by McGill University will be in 1911.

2. Science Scholarships granted by Her Majesty's Commissioners for the Exhibition of 1851.—These scholarships, of the value of £150 sterling a year, are tenable for two, or, in rare instances, three years. They are limited, according to the Report of the Commission, "to those branches of Science such as Physics, Mechanics and Chemistry, the extension of which is specially important for our national industries." Their object is not to facilitate ordinary collegiate studies, but "to enable students to continue the prosecution of science with the view of aiding in its advance or in its application to the industries of the country."

It is open to students of not less than three years' standing who have shown evidence of capacity for original research, and is tenable at any university or any other institution approved by the Commission.

A nomination to one of these Scholarships may be granted to McGill University in 1911, in which event appli-

cations should be sent in to the Registrar on or before March 1st.

This Scholarship has been awarded as follows:—

Evans, P. N., 1891; Macphail, J. A., 1893; King, R. O., 1895; Gill, J. L. W., 1897; McLean, W. B., 1899; McClung, R. K., 1901; Cooke, H. Lester, 1903; Johnson, F. M. G., 1905; Simpson, J. C., 1907; Boyle, R. W., 1909.

3. THE DR. T. STERRY HUNT RESEARCH SCHOLARSHIP IN CHEMISTRY.—It is proposed to offer this scholarship each year to graduate students in the Faculties of Arts and Applied Science.

II. EXHIBITIONS AND SCHOLARSHIPS IN ARTS.

GENERAL REGULATIONS.

1. No student can hold more than one Exhibition or Scholarship at the same time.

2. Exhibitions and Scholarships will not necessarily be awarded to the candidates who have obtained the highest marks. An adequate standard of merit will be required.

3. If in any College Year there be not a sufficient number of candidates showing adequate merit, any one or more of the Exhibitions or Scholarships offered for competition may be given to more deserving candidates in another Year.

4. A successful candidate must, in order to retain his Scholarship or Exhibition, proceed regularly with his college course to the satisfaction of the Faculty.

5. The annual income of the Scholarships or Exhibitions will be paid in four instalments, viz.:—In October, December, February and April, about the 20th day of each month.

EXHIBITIONS AVAILABLE IN ARTS.

The Jane Redpath Exhibition, founded by the late Mrs. Redpath, of Terrace Bank, Montreal:—value, about $90, open to both men and women.

One Sir William Dawson Exhibition, given by the New York Graduates' Society:—value $60.

Ten Macdonald Scholarships and Exhibitions, founded by Sir W. C. Macdonald, Montreal:—value $125 each.

The Charles Alexander Scholarship (for men students) founded by the late Charles Alexander, Esq., Montreal, for the encouragement of the study of Classics and other subjects:—value $90.

The Major H. Mills Scholarship, founded by bequest of the late Major Hiram Mills:—value $100.

The Barbara Scott Scholarship, founded by the late Miss Barbara Scott, Montreal, for the encouragement of the study of the Classical languages and literature:—value $100 to $120.

Four Mackenzie Scholarships for Economics and Political Science, founded in memory of the late Hon. Alexander Mackenzie: — value, $50 to $100. (For particulars see page 51.)

The P. S. Ross Exhibitions, for competition in the Commercial Course, founded by Mr. P. D. Ross, in memory of his late father, P. S. Ross: two of the value of $50 each.

One of The Rev. Samuel Massey Exhibitions, founded by Mr. George Massey, in memory of his late father, Rev. Samuel Massey:—value $62.50.

FIRST YEAR EXHIBITIONS IN ARTS.

The following Exhibitions and Scholarships* will be offered for competition in June, 1910, to candidates for admission to the First Year:—

(1) *Matriculation Exhibitions.*

These Exhibitions will be awarded for general proficiency on the results of the matriculation examination, in the subjects of the Final Division. (For which see page 23.)

Seven, of the value of $100 each—five for those intending to take the B.A. Course and two for candidates who propose to enter on the B.Sc. Course, in Arts—are open to both men and women; and two are open to women only and conditional on residence in the Royal Victoria College, one of $200 and one of $100.

* A Scholarship is ordinarily tenable for *two* years; an Exhibition for *one* year.

For the Matriculation Exhibitions the value attached to each subject is as follows:—

Language subjects	100	Marks.
Mathematical subjects	100	"
English	75	"
Science subjects	50	"

An Exhibition of the value of $50.00, tenable for one year—and known as the P. S. Ross Exhibition—will be awarded in 1909, and also in 1910, to the candidate who stands highest in the Matriculation Examination for entrance on the course for the Diploma of Commerce. For subjects of examination see page 23.

(2) *Advanced Exhibitions.*

These Exhibitions and Scholarships will be awarded on the result of an examination on any three of the following subjects(provided, however, that no award will be made to a candidate who has not obtained first-class standing at the University Matriculation Examination or at an examination which is accepted as its equivalent): English, Latin, Greek, French, German, Mathematics. For scope of examination in each subject see below.

Five Exhibitions, of the value of $150 each are offered, and three Scholarships, tenable for two years, of the value of $150 each per year.

The Scholarships shall be awarded to the three candidates (otherwise qualified) who take the highest standing in the examination, and the tenure of the Scholarship for the second year shall be contingent on the holder obtaining a first class standing in the sessional examinations of the First Year, or, in the case of those who obtain first class in an Advanced Course, a standing not lower than second class in any subject.

One or more additional Advanced Exhibitions may be awarded should the number of candidates who attain a sufficiently high standard for Scholarships be less than three.

Every candidate for a First Year Exhibition or Scholarship shall, on application for examination, sign a declaration to the effect that he intends to proceed to a Degree in Arts in this University. Blank forms of application, to be obtained from the Registrar, must be filled out and returned before the first of May preceding the examination.

The subjects for the Advanced Exhibitions are of equal value.

Requirements in each subject.

The details of the work required in the subjects for Advanced Exhibitions (any three of which may be chosen, as stated above) are as follows:—

English.

LANGUAGE, 1910 and 1911.—The Making of English, by Henry Bradley (Macmillan).

LITERATURE, 1910 and 1911.—Poems of the Romantic Revival (Copp, Clark Co.), pp. 83-200, with Introduction and Notes; Macaulay, Essays on Byron, Warren Hastings, Clive.

COMPOSITION.—The candidate will be required to write an essay on some subject connected with the examination.

Latin.

Grammar; translation at sight; prose composition.

Translation from and questions on the following texts:

1910.—Horace, Odes, Book I; Livy, Book II, chaps 1 to 33.

1911.—Virgil, Aeneid, Book II; Cicero, in Catilinam I and II.

Greek.

Grammar; translation at sight; prose composition.

Translation from and questions on the following texts:

1910.—Homer, Odyssey IX; Thucydides I, chaps. 89 to 118

1911.—Homer, Iliad VI; Lucian, Charon.

French.

(*a*) Grammar, including syntax; (*b*) translation at sight from French into English; (*c*) translation at sight of easy English prose passages into French; (*d*) translation from the following texts:—

1910.—Augier, Le Gendre deM. Poirier (Heath & Co.); DeVigny, La Canne de Jonc (Heath & Co.); Sand, La Mare au Diable (Ginn & Co.).

German.

(*a*) Grammar.—accidence and syntax; (*b*) translation at sight from German into English; (*c*) translation at sight into German of an easy passage of English prose; (*d*) translation and grammatical study of the following texts:

1910:—Fouqué, Undine (Holt); Chamisso, Peter Schlemihl (Holt); Keller, Kleider machen Leute (Heath).

Mathematics.

GEOMETRY.—Euclid's Elements, Books IV and VI, with definitions of Book V, and easy deductions.*

ALGEBRA.—The three progressions, ratio, proportion, variation, permutations and combinations, binomial theorem, logarithms, theory of quadratic equations, as in Hall & Knight's Elementary Algebra (omitting Chapters 40-43 inclusive), or as in similar text-books.

TRIGONOMETRY.—Measurements of angles, trigonometrical ratios or functions of one angle, of two angles, and of a multiple angle, as in Lock's Elementary Trigonometry, Chapters I to XII.; Hall & Knight's Trigonometry, Chaps. I. to XII inclusive, omitting Chap. V.; or as in similar text books.

In addition to the above First Year Exhibitions, three bursaries, of the value of $60 each, are offered annually in

* The text-book at present in use in McGill University and which is also authorized for use in the schools of the Province of Quebec, is Hall & Stevens' Euclid (Macmillan & Co.) Teachers will find Hall & Stevens' School Geometry a useful adjunct as far as regards practical applications.

the Faculty of Arts to the three teachers-in-training of the School of Education of Macdonald College, (1) who have satisfied the requirements for entrance to this Faculty, and (2) who, of all those applying for these bursaries, stand highest in their final examination for the Model School Diploma.

SECOND YEAR EXHIBITIONS IN ARTS.*

Six Exhibitions, ranging in value from $100 to $150 each, will be offered for competition to students entering the Second Year, in September, 1909:—

The subjects of examination are divided into two groups as follows:—

Group I.—Greek, Latin, French, German, English.

Group II.—Mathematics, Physics.

Candidates are required to offer two major subjects and one minor subject. The two major subjects must be selected from the same group, the minor subject from either group, the examination in the major subject being more extensive than that in the same subject presented as a minor subject. Two Exhibitions of $150 each and two of $100 each are offered to candidates taking their major subjects from Group I, and one Exhibition of $150 and one of $100 to candidates taking their major subjects from Group II.

The above Exhibitions are open to all undergraduates in Arts, whether they are taking the B.A. or the B.Sc. course.

In 1910 an Exhibition, of the value of $50.00, to be known as the P. S. Ross Exhibition, will be awarded to the student entering the Second Year of the Commercial Course who takes the highest standing at the sessional examinations of the First Year.

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* Second Year Exhibitions are open to students who have passed the First Year sessional examinations, provided that not more than two sessions have elapsed since their matriculation; and also to candidates for entrance into the Second Year. The Second Year Exhibition examination will, for candidates who have not previously entered the University, be regarded as a matriculation examination, *pro tanto*.

Requirements in each Subject.

Greek.

(As a Major Subject.)

For 1909:—As in Calendar for 1908-1909.

For 1910:—

I. (*a*) Plato, Crito (Pitt Press).

(*b*) Euripides, Hecuba (Hadley, Pitt Press).

II. Composition and Translation at Sight.

III. History:—Morey's "Outlines of Greek History with a Survey of Ancient Oriental Nations" (American Book Company).

(As a Minor Subject.)

The same as above, omitting I (*b*) and III.

Latin.

(As a Major Subject).

For 1909:—As in Calendar for 1908-1909.

For 1910:—

I. (*a*) Cicero, pro Lege Manilia (Wilkins, Macmillan).

(*b*) Virgil, Bucolica (Sidgwick, Pitt Press), omitting the 2nd and 3rd Eclogues.

II. Composition and Translation at Sight.

III. Roman History:—From the First Punic War to the death of Sulla.

(As a Minor Subject).

The same as above, omitting I (*b*) and III.

French.

(As a Major Subject).

(*a*) Grammar; (*b*) translation at sight of an English passage into French; (*c*) French essay on a prescribed subject; (*d*) translation of passages taken from the prescribed texts; (*e*) a critical study of the following texts, tested by questions in the French language to be answered in French:—

For 1909:—As in Calendar for 1908-1909.

For 1910.—Corneille, Cinna (Holt); Molière, Le Malade Imaginaire (Macmillan); Thiers, Expédition de Bonaparte en Egypt (Holt); France, Le Crime de Sylvestre Bonnard (Holt).

(*As a Minor Subject*).

The same as above, omitting Molière and Thiers.

German.

(*As a Major Subject*).

(*a*) Grammar; (*b*) translation at sight from German into English, and from English into German; (*c*) the life of Schiller and a critical study and translation of the following texts:—

For 1909 and 1910.—Schiller, Die Piccolomini (Pitt Press); Kleist, Michael Kohlhaas (Holt); Fulda, Talisman (Heath).

(*As a Minor Subject*).

The same as above, omitting Schiller.

English.

(*As a Major Subject*).

Literature.—Shakespere, Macbeth (ed. Deighton, Macmillan); Milton, Comus (ed. Bell, Macmillan); Johnson, Lives of Dryden and Pope (ed. Milnes, Clarendon Press Series).

History.—Church, Middle Ages.

(*As a Minor Subject*)..

The same as above, omitting Comus and Lives of Dryden and Pope.

Mathematics.

(*As a Major Subject*).

Plane Geometry.—Ordinary and advanced section courses of the First Year.

Algebra.—Selected course from Chaps. I-XXXII of Hall and Knight's Higher Algebra.

Theory of Equations.—Selected course from Burnside and Panton.

Plane Trigonometry.—As in the ordinary and advanced courses of the First Year.

(*As a Minor Subject*).

The Mathematics of the First Year ordinary course.

Physics.

As in Carhart and Chute.

THIRD YEAR SCHOLARSHIPS IN ARTS. *

The following six Scholarships, of the annual value of $150 each, will be open for competition to students entering the Third Year in September, 1909:—

One for English and another language.

One for Latin or Greek and another language † (English excepted).

One for French and German and another language † (English excepted).

Two for Mathematics and Physics.

In addition to the above Scholarships, the three following Exhibitions, of the value of $150.00 each, are also offered for competition to students entering the Third Year:—

One for Philosophy.

One for Chemistry and Physics.

One for Biology.

A Bursary of $25 will be awarded to that one of the holders of these three Scholarships who is considered most deserving on entering the Fourth Year.

An exhibition of $50, to be known as the Hannah Willard Lyman Exhibition, will also be awarded annually in the Fourth Year, to the best woman student who may have been the

* Third Year Scholarships are open to students who have passed the Second Year sessional examination, provided that not more than three sessions have elapsed since their matriculation; and also to candidates who have obtained what the Faculty may deem equivalent standing in some other university, provided that application be made before the end of the session preceding the examination. Double course students (Arts and Applied Science or Arts and Medicine) are not eligible for these Scholarships.

† The language not chosen in the first instance may be taken as the second language.

holder of a Third Year Exhibition in Biology or Chemistry or Philosophy. Should there be no sufficiently deserving candidate, this Exhibition may be awarded at the beginning of the Third Year to a woman candidate who may fail to obtain one of the six Scholarships offered to Third Year students.

Of the two Third Year Scholarships assigned to Mathematics and Physics, one is open to women only, the other to men only. Should, however, no candidate be eligible for the scholarship open to men only, it may be awarded to a woman.

In the award of Third Year Scholarships, the Second Year standing of candidates, in the subjects selected, will be taken into account.

In the event of no candidate of sufficient merit presenting himself, the scholarship assigned to any group of subjects may, at the discretion of the Faculty, be awarded in another group, whether a scholarship has been already assigned to that group or not.

Mackenzie Scholarships:—

Four Scholarships, known as the Mackenzie Scholarships, are awarded annually in the Department of Economics and Political Science. Two of these, of the value respectively of $100 and $50, tenable for one year, are awarded on the result of a special examination (see page 54), held in September, and open to students who have completed the work of the Second Year. The tenure of the Scholarships is conditional upon the holders pursuing their studies in the Honour work in Economics and Political Science of the Third Year. The other two Scholarships, of the value respectively of $100 and $50, are awarded on the results of the Honour examination of the Third Year in Economics and Political Science. The Scholarships will not be awarded except on satisfactory evidence of merit: their tenure is conditional upon the holders pursuing their studies in the Honour work in Economics and Political Science of the Fourth Year.

Requirements in each Subject.

Greek.

Prose Composition; Translation at Sight.

Study of the following texts:—Demosthenes, Olynthiacs (Glover, Pitt Press); Homer, Odyssey, Bk. ix (Edwards, Pitt Press).

Greek History, to 404 B.C. Book recommended, Bury, History of Greece (Macmillan).

Latin.

Prose Composition; Translation at Sight.

Study of the following texts:—Virgil, Æneid I, II and VII; Quintilian X (Peterson, Clarendon Press), Chapters 1 and 2; Tacitus, Histories, Bk 1 (Davies, Pitt Press).

Roman History, 133 to 31 B.C. Book recommended, How and Leigh, History of Rome (Longman's).

English and History.

Literature. Shakspere, Tempest, ed. Deighton (Macmillan); Milton, Paradise Lost, Books I and II, ed. Macmillan (Macmillan); Burke, On Conciliation with America, ed. Cook, (Longmans); Arnold, Essays in Criticism, Second Series (Macmillan's Colonial Library). *History.*—Robinson, Introduction to the History of Western Europe (Ginn & Co.). *Composition.*—The candidate will be required to write an essay on some subject connected with the literature or history prescribed. High marks will be given for this subject.

Hebrew.

Deuteronomy, Chaps. I-VII (Driver's Deuteronomy in International Commentary Series); also the record of the Call of the Prophets Isaiah, Jeremiah and Ezekiel, *i.e.*, Is.: VI; Jer.: I, and Ezek.: I. Papers will also be set on easy prose composition, pointing, sight translation and miscellaneous questions.

French.

(*a*). French essay; (*b*) translation at sight from French into English and from English into French; (*c*) translation of passages from the prescribed texts; (*d*) questions on the subject matter of the prescribed texts, and the lives of their authors.

For 1909 and 1910.— Molière, Le Médecin malgré lui (Heath); Racine, Phèdre (Heath); Hugo, Les Misérables (Heath); Taine, Introduction à l'Histoire de la littérature Anglaise (Heath); Rostand, Cyrano de Bergerac (Holt).

The entire examination will be held in the French language.

German.

(*a*) German essay; (*b*) translation at sight from German into English and from English into German; (*c*) translation from the prescribed texts; (*d*) questions on the subject matter of the following texts, the lives of their authors and the periods they represent:—

For 1909 and 1910.—Goethe, Dichtung und Wahrheit, Bks. I, II, III (Heath); Schiller, Das Lied von der Glocke (Holt) and Wallenstein's Lager (Holt); Eichendorff, Aus dem Leben eines Taugenichts (Holt); Heine, Prose Selections (Macmillan).

Mathematics and Physics.

Mathematics.

Differential and Integral Calculus.—Lamb's Infinitesimal Calculus and Osgood's Calculus.

Analytic Geometry.—C. Smith's Conic Sections.

Higher Trigonometry.—Lock's Higher Trigonometry.

Spherical Trigonometry.—Candidates are advised to take the Second Year special course in this subject.

Algebra.—Determinants as in Burnside and Panton' Theory of Equations.

Physics.

Electricity and Magnetism.—S. P. Thompson.

Chemistry and Physics.

Chemistry.

Principles of Chemistry, Mendeléef.
Subject of Essay.—The Basis of the Periodic Law.

Physics.

Electricity and Magnetism.—S. P. Thompson.

Philosophy.

Mellone, Text-book of Logic, chapters 1-9; Mill, System of Logic, Bk. II, chap 3, and Book III, chaps. 1-8, 10-12 and 21; James, Psychology, Briefer Course (the *whole*, except chap. 7); Descartes, Discourse on Method (French edition, Hachette et Cie.; English edition, Open Court Philosophical Classics, No. 38, Chicago).

Biology.

Animal Biology.

The Origin of Species, by Charles Darwin.

Plant Biology.

Cross and Self Fertilization in the Vegetable Kingdom, by Charles Darwin.

[Economics.

John Stuart Mill, Principles of Political Economy, Book I, Book II, Chapters XI, XIV, XV, XVI, Book III and Book V, Chaps. I, II, III, IV, V, VI, X, XI; F. Walker, Political Economy, Advanced Course, Parts I-V (inclusive); J. K. Ingram, History of Political Economy (edition 1893), pp. 1-42 (inclusive), 55-63 (inclusive), 87-104 (inclusive), 196-206 (inclusive), and 231-234 (inclusive); L. L. Price, A Short History of English Commerce and Industry.

III. PRIZES IN ARTS.

1. **The Neil Stewart Prize.**—An annual prize of $15 is open to all undergraduates and graduates of this University, and also to graduates of any other university, who are students of Theology in some college affiliated to this University. The rules which govern the award of this prize are as follows:—

(1) The candidate selected for the prize shall have passed an examination in (1) Hebrew Grammar, Syntax, easy composition, pointing, and miscellaneous questions: (2) Translation from Hebrew into English, both prepared and unprepared. [The Hebrew texts prescribed for the present year are as in the Ordinary Hebrew Course (page 132).

(2) Three papers will be set of three hours each:—One on Pointing and Translation (with lexical and grammatical notes); one on grammar and composition; and one on miscellaneous questions.

(3) Credit will be given to candidates showing a knowledge of Biblical Aramaic, and Rabbinic, provided the work done on classical Hebrew be thoroughly up to Scholarship standard. Special application should be made for a paper on these subjects.

(4) Should no candidate's work be up to the Scholarship standard the prize will be withheld, and a prize of $30 will be offered in the following year for the same.

The prize, founded by the late Rev. C. C. Stewart, M.A., and terminated by his death, was re-established by the liberality of the late Neil Stewart, Esq., of Vankleek Hill.

2. **Early English Text Society's Prize.**—This prize, the annual gift of the Early English Text Society, will be awarded for proficiency in the subjects of the language group in the English Honour curriculum of the Third and Fourth Years.

3. **New Shakspere Society's Prize.**—This prize, the annual gift of the New Shakspere Society, open to graduates and undergraduates, will be awarded for a critical knowledge of the following plays of Shakspere:—Hamlet, Macbeth, Othello, King Lear.

4. **Charles G. Coster Memorial Prize.** — This prize, intended as a tribute to the memory of the late Rev. Chas. G. Coster, M.A., Ph.D., Principal of the Grammar School, St. John, N.B., is offered for competition, by Mr. Colin H.

Livingstone, B.A., to undergraduates (men and women) from the Maritime Provinces (Nova Scotia, New Brunswick and Prince Edward Island). In 1910, it will be awarded to the student from the above Provinces who, in the opinion of the Professor of English Language and Literature, has written the best essay on the aboriginal Indian tribes who inhabited the territory now embraced in these Provinces, the essay to set forth the geographical distribution of these tribes, the characteristics of their language, worship, customs, manner of conducting war, tribal relationships with western Indian nations, social customs, history since European occupation, and present status and prospects.

5. **Annie McIntosh Prize.** — The income of the sum of $425, subscribed by the pupils and friends of the late Miss Annie M. McIntosh, will be offered as a prize to students of the Royal Victoria College in such subject, or for such work, as the Faculty may determine.

For Medals and Certificates awarded in Arts, see page 60.

The names of those who have taken Honours or Certificates will be published in order of merit, with mention, in the case of students of the First and Second Years, of the schools in which their preliminary education has been received.

IV. EXHIBITIONS AND PRIZES IN APPLIED SCIENCE.

1. *Awarded on result of special Examinations.*

1. A British Association Exhibition of $50.00 and prize of $25.00 to students entering the Fourth Year, the subjects of examination being the Mathematics and Theory of Structures of the ordinary course.

2. Three prizes of $25.00, $15.00 and $10.00, to students entering the Third Year, the subject of examination being the Mathematics of the Second Year.

3. A Scott Exhibition of $50.00, founded by the Caledonian Society of Montreal, in commemoration of the Cen-

tenary of Sir Walter Scott, and two prizes of $25.00 and $15.00, to students entering the Second Year, the subjects of examination being:—

(*a*) English Literature (summer vacation work); (*b*) Mathematics of the First Year; (*c*) Descriptive Geometry of the First Year.

4. Two prizes, each of $10.00, presented by J. M. McCarthy, Esq., B.A.Sc., to students entering the Third Year, for proficiency in Levelling and Transit Work.

Students are required to notify the Dean of their intention to compete for any of the above, at least one week before the commencement of the examination.

5. A Scholarship of the value of $200 per annum, established by the Canadian Railway Club, to be awarded to the son of a member of the Club who obtains the highest standing in the matriculation examination.

6. Scholarships covering four years' tuition in the Faculty of Applied Science are also awarded annually on the result of the matriculation examination, by the Grand Trunk and Canadian Pacific Railway Companies. These are open for competition to apprentices and other employees of the Companies under twenty-one years of age, as well as to minor sons of employees. For full particulars as to number of scholarships offered, conditions, etc., application should be made, in the case of the Grand Trunk Railway, to Mr. R. S. Logan, Assistant to the Second Vice-President, G.T.R. Offices, Montreal; and, in the case of the Canadian Pacific Railway, to Mr. C. H. Buell, office of the President, C.P.R. Offices, Montreal.

2. *Awarded on results of Sessional Examinations or for special theses.*

1. The Allis-Chalmers Company of Chicago offer several Scholarships for excellence in work in the Mining Department. Particulars regarding these Scholarships can be obtained from the Professor of Mining.

2. Workshop Prize. — A prize of $20.00, presented by Mr. C. J. Fleet, B.A., B.C.L., for bench and lathe work in the wood-working department, open to students of not more than two terms' standing in workshop practice.

3. A prize of $50.00, presented by Mr. James Tighe, B.A.Sc., for research work in Hydraulics.

4. An exhibition offered to graduates by Mr. A. E. Childs, M.Sc., for a special research on "The flow of gas through pipes under pressure."

5. Summer Work. (See page 186.) The following prizes are offered for the best summer theses:—

To the students of the Civil Engineering Course, a prize of $25, presented by E. B. Greenshields, Esq., B.A.

To the students of the Electrical Engineering Course, a prize of $25.

To the students of the Mining Engineering Course, a prize of $25, presented by Geo. E. Drummond, Esq.

To the students of the Metallurgical Course, a prize of $25, presented by Milton L. Hersey, Esq., D.Sc.

To the students of the Mechanical Engineering Course, a prize of $25, presented by the Crosby Steam Gauge and Valve Co.

Four prizes, each of the value of $25, are offered for competition to student members of the Canadian Society of Civil Engineers, for the best papers on subjects in any department of engineering. The summer theses prepared by students of this University are available for this competition.

6. The sum of $50.00 has been voted by the Undergraduates' Society of the Faculty of Applied Science, to be given as prizes for the best papers read before the Society during the session 1909-1910.

7. Prizes or Certificates of merit are given to such students as take the highest place in the Sessional and Degree examinations. Partial students are not eligible for prizes.

For other prizes given in connection with Medals in Applied Science, see under Medals and Prizes, page 62.

V. EXHIBITIONS AND PRIZES IN MEDICINE.

1. One of the Sir William Dawson Exhibitions given by the New York Graduates' Society, value $60, will be at the disposal of the Faculty of Medicine for the Session 1909-1910.

2. **The Final Prize.**—A prize in books (or a microscope of equivalent value) awarded for the best examination, written and oral, in the Final branches. The Holmes' medallist is not permitted to compete for this prize.

3. **The Third Year Prize.**—A prize in books awarded for the best examination, written and oral, in the branches of the Third Year.

4. **The Second Year Prize.**—A prize in books for the best examination in all the branches of the Second Year course.

5. **The First Year Prize.**—A prize in books for the best examination in all the branches of the First Year course.

For the Medals awarded in this Faculty, see page 63.

V. EXHIBITIONS AND PRIZES IN LAW.

1. An Exhibition, of the value of $50 per annum—to be known as the Alexander Morris Exhibition — has been founded in memory of the late Hon. Alexander Morris, M.A., D.C.L., of Toronto, Ont., and will be awarded to the student who obtains the highest standing in the Second Year.

2. One of the two Exhibitions founded by Mr. George Massey in memory of his late father, Rev. Samuel Massey, will be at the disposal of the Faculty of Law for the Session 1909-1910. The value of this Exhibition is $62.50.

3. Various money prizes are awarded to the students of each year who obtain the highest distinction at the examinations held at the close of the session. No prize will, however, be awarded to any student unless a sufficiently high standing is attained.

For Medals in Law, see under Medals, etc., page 62.

MEDALS, CERTIFICATES AND HONOURS.

I. IN ARTS.

1. **Gold Medals** will be awarded in the B.A. Honour examinations to students who take the highest Honours of the first rank in the subjects stated below, and who shall have passed creditably the ordinary examinations for the Degree of B.A., provided they have been recommended therefor to the Corporation by the Faculty, on the report of the examiners:—

The Henry Chapman Gold Medal for Classical Languages and Literature.

The Prince of Wales Gold Medal for Mental and Moral Philosophy.

The Anne Molson Gold Medal for Mathematics and Natural Philosophy.

The Shakspere Gold Medal for English Language and Literature.

The Logan Gold Medal for Geology, Mineralogy and Palæontology.

The Major Hiram Mills Gold Medal for Biology.

The Governor-General's Gold Medal for Modern Languages and Literature.

The regulations for the Governor-General's Gold Medal are as follows:—

(1) The subjects for competition shall be the French and German languages and literature.

(2) The course of study shall extend over two years, viz., the Third and Fourth Years.

(3) The successful candidate must be capable of speaking and writing both languages correctly.

(4) There shall be examinations in the subjects of the course in both the Third and Fourth Years, at which Honours may be awarded to deserving candidates.

(5) The general conditions of competition and the privileges as regards exemptions shall be the same as for the other Gold Medals in the Faculty of Arts.

(6) Students from other Faculties shall be allowed to compete, provided they pass the examinations of the Third and Fourth Years in the above subjects.

(7) Candidates desiring to enter the Third Year of the course, who have not obtained first class standing at the sessional examinations of the Second Year in Arts, are required to pass an examination in the work of the first two years of the course in Modern Languages, if called on to do so by the Professors.

(8) The subjects of examination shall be those of the Honour Course in Modern Languages.

In addition to the above, certain medals are offered annually by the Alliance Française, at the discretion of the Department of Modern Languages.

If there be no candidate for any medal, or if none of the candidates fulfil the required conditions, the medal will be withheld, and the proceeds of its endowment for the year may be devoted to prizes in the subject for which it was intended.

For details of the work prescribed for the several Honour courses, see pages 98 to 102, and also pages 109 to 170.

2. **Special Certificates** will be given to those candidates for B.A. who have been placed in the first class at the ordinary B.A. examination; have obtained three-fourths of the maximum marks in the aggregate of the courses proper to the Third and Fourth Years, are in the first class in not less than half of these courses, and have no third class. At this examination, no candidate who has taken exemptions (see pages 106 to 109) can be placed in the first class unless he has obtained first class in the examination in four of the subjects offered (each corresponding to a full course of lectures), and has no third class.

3. **Certificates** of High General Standing will be granted to those undergraduates of the first two years who have obtained three-fourths of the maximum marks in the aggregate of the studies proper to their year, are placed in the first class in not less than half the subjects, and have not more than one third class.

4. **Graduates** who attend lectures in any subject, and pass the corresponding examination therein, may obtain certificates of their standing, whether the course in question be Ordinary or Honour.

For Prizes in Arts, see page 55.

II. IN APPLIED SCIENCE.

1. The Governor-General's silver medal (the gift of His Excellency The Right Honourable Earl Grey) will be awarded for graduate research work.

2. A British Association medal and prize in books are open for competition to students of the graduating class in each of the ten courses, and, if the examiners so recommend, will be awarded to the student taking the highest position in the final examinations. The British Association Medals and Exhibition were founded by the British Association for the Advancement of Science, in commemoration of the meeting held in Montreal in the year 1884.

3. A Gold Medal and two Prizes of $35 and $15, offered by the Canadian Mining Institute, will be open for competition to students from McGill University, Toronto University and Queen's University, and will be awarded to the students presenting the best papers on some subject connected with mining, ore dressing, metallurgy, or economic geology. Preference will be given to those theses which show decided originality.

4. Honours.—On graduation, Honours will be awarded for advanced work in professional subjects.

5. Certificates may be given to students who have passed through any of the special courses attached to the curriculum.

For Prizes in Applied Science, see page 56.

III. IN LAW.

1. The Elizabeth Torrance Gold Medal is awarded to the student who obtains the highest marks in the final exam-

inations, provided that his answers are, in the estimation of the Faculty, of sufficient merit to entitle him to this distinction.

For Prizes in Law, see page 59.

IV. IN MEDICINE.

1. The **Holmes Gold Medal**, founded by the Medical Faculty in the year 1865, as a memorial of the late Andrew Holmes, Esq., M.D., LL.D., late Dean of the Faculty of Medicine, is awarded to the student of the graduating class who receives the highest aggregate number of marks in the different branches comprised in the medical curriculum.

The student who gains the Holmes' Medal has the option of exchanging it for a bronze medal and the money equivalent of the Gold Medal.

2. **The Sutherland Gold Medal,** founded in 1878 by the late Mrs. Sutherland, in memory of her late husband, William Sutherland, M.D., formerly Professor of Chemistry in this Faculty, is awarded for the best examination in general and medical Chemistry, together with a creditable examination in the Primary branches. The examination is held at the end of the Third Year.

3. **The Wood Gold Medal,** founded by Mr. Casey A. Wood, M.D., is awarded to the student of the graduating class who receives the highest aggregate number of marks in the clinical branches of the Final Year.

4. **The Woodruff Gold Medal,** founded by Dr. Thomas A. Woodruff, of Chicago, is awarded to the student of the Final Year who takes the highest standing in Ophthalmology and Oto-Laryngology.

For Prizes in Medicine, see page 59.

FEES.

GENERAL REGULATIONS.

1. Fees shall be paid to the Bursar on or before October 10th. The registration ticket must be shown to the Bursar, in every case, before the fee is paid. After October 10th an additional fee of $2.00 will be exacted of all students in default.

No fees will be refunded to partial students under any circumstances whatever.

2. Immediately after October 20th the Bursar shall send to each professor and lecturer a list of the registered students who have not paid their fees, on receipt of which the professor or lecturer shall strike their names from the register of attendance, and such students cannot be readmitted to their classes except on presentation of a special ticket, signed by the Bursar, certifying to the payment of fees.

Students registering after October 20th shall pay their fees at the time of registration, failing which they become subject to the provisions of Regulation 2.

MATRICULATION FEES.

For the first examination *	$5.00
(For examination at a local centre where not more than two candidates are writing the fee will be determined by the Registrar, provided however, that it shall in no case exceed $12 for each candidate.)	
For a subsequent examination in one or two subjects.	2.00
For a subsequent examination in three or more subjects.	3.00
For examination of certificates, in respect of which candidates are exempted from the whole of the matriculation examination.	1.00

* In the case of candidates who qualify on certificates, or by other examinations in all but three subjects, or less, the fee will be $3.00.

Candidates writing on matriculation papers, with the view of qualifying as partial students in the Faculty of Arts, shall pay a fee of $1.00 per subject.

Matriculation fees must be sent to the University Registrar at the time of application for the examination.

Certificates will be issued to successful candidates without additional fee. Duplicate certificates will not be granted unless satisfactory proof be given of the loss or destruction of the original. The fee for a duplicate certificate is $1.00.

FEES IN ARTS.

(*For Regulations re payment, see page* 64.)

Sessional fee for undergraduates and conditioned students.. .. .. $61.00*

(This includes fees for laboratories, library, gymnasium, athletics and graduation.)

Fees for Partial Students.—(First and Second Years.)—$16 per session for one course† and $10 for one half-course† of lectures, including the use of the Library; $12 per session for each additional course; $8 per session for each additional half-course. In addition there will be a fee of $3 for Athletics.

Fees for Partial Students.—(Third and Fourth Years.)—$22 per session for one course† and $13 for one half-course† of lectures, including the use of the Library; $20 per session for each additional course; $11 per session for each additional half-course. In addition there will be a fee of $3 for Athletics.

Partial students taking the full curriculum in any one Year pay the same fees as undergraduates in that Year.

Graduates in Arts of this University and graduates of other universities attending full courses in affiliated theolo-

* At the request of the students themselves and by the authority of Corporation, an additional dollar will be exacted from all undergraduates and conditioned students (men) in the Faculty of Arts, for the support of the Literary and the Undergraduates' Societies of that Faculty.

† The lectures and laboratory work, if any, in one subject in any of the four college years constitute a "course," if occupying three hours per week; a "half-course" if occupying less than three hours per week.

gical colleges are allowed, on payment of one-half of the usual fees, to attend all lectures in the undergraduate course, except those for which a special fee is exigible.

Fees for special courses of lectures, given after 4 p.m.

For one lecture per week during one term*	$ 3.00
For two lectures per week during one term*	4.00
For two lectures per week during the Session	6.00

For more than two lectures per week regular partial student rates will be charged.

The fee for athletics and the caution money deposit are not exacted from partial students attending only the courses of lectures included in the Teachers' Syllabus.

Fees for summer classes:—

For one class (Chemistry excepted)	8.00
For each additional class (Physics and Chemistry excepted)	4.00
For Physics	8.00
For Botany	10.00

(Teachers and McGill University students may attend this class on payment of half the above fee.)

For Chemistry (with Laboratory Work)	$25.00

Special fees:—

Supplemental examination in any subject or any part of a subject taken at the regular date fixed by the Faculty	2.00
Supplemental examination, when granted at any other time than the regular date fixed by the Faculty	5.00

All fees for supplemental examinations must be paid to the Bursar, and the receipts shown to the Dean before the examination.

Fee for the Degree of B.A. or B.Sc. (Arts) conferred in absentia (except when the candidate has been specially exempted by the Faculty).	20.00

* Two lectures a week for one term is considered as the equivalent of one lecture a week for the Session.

Caution Money. — Every student is required to deposit with the Bursar the sum of $5, as caution money, to cover damage done to furniture, apparatus, books, etc. This amount, less deductions (if any), will be returned at the close of the session.

FEES IN APPLIED SCIENCE.

(*For Regulations re payment, see page* 64.)

Annual fee for the undergraduate course in Architecture. $100.00
Annual fee for all other undergraduate courses. . . 175.00

Students taking the six years' Double Course in the Faculties of Arts and Applied Science shall pay full fees in the Faculty of Arts, and the following fees in the Faculty of Applied Science:—

First Year. $115.00
Second, Third and Fourth Years. 175.00

No student can obtain undergraduate standing in any year unless he has already paid the full undergraduate fee for that year.

The fees for partial students are: — $4.00 for Library, $3.00 for Athletics, and a fee at the rate of $6.00 per annum for each hour of instruction per week, but the maximum fee shall in no case exceed the full undergraduate fee.

In addition to the fees specified above, every student is required to pay a fee of $1.00 *for the Undergraduates' Society in the Faculty of Applied Science, to be collected with the tuition fees at the office of the Bursar.*

Caution money deposit (for all classes of students). $ 5.00
Fee for graduates taking a full undergradute course. 150.00

(Graduates of this Faculty will be required to pay only one-half of this amount.)

Fee for the Degree of B.Sc., conferred in absentia (except when the candidate has been specially exempted by the Faculty). $20.00

Fees for Summer classes (First Year).

Mathematics.	
For one division of the subject	8.00
For each additional part	4.00
Physics	8.00
Descriptive Geometry, Freehand Drawing and Lettering	25.00
Chemistry, with Laboratory Work (Second Year)	25.00

For supplemental examinations, the fee is $2.00 for each examination period (morning or afternoon). It must be paid to the Bursar of the University not later than the day before the examination, and receipt for the same must be shown to the Professor in charge before the examination papers are distributed.

The fee for a special supplemental examination is $5.00.

FEES IN MEDICINE.

(*For Regulations re payment, see page* 64.)

First Year.

Class fees	$125.00
Caution money (deposit)*	10.00
Athletics	3.00
	$138.00

Second Year.

Class fees	$125.00
Caution money (deposit)*	10.00
Athletics	3.00
	$138.00

* The Caution money deposit is intended to cover breakages in the different laboratories, etc. The amount of the deposit, less deductions (if any) will be returned at the close of the Session.

THIRD YEAR.

Class fees	$125.00
Caution money (deposit)*	10.00
Hospitals	10.00
Athletics	3.00
	$148.00
Maternity Hospital fee (to be paid by four-year-course students only)	6.00

FOURTH YEAR.

Class fees	$125.00
Caution money (deposit)*	10.00
Hospitals	10.00
Maternity Hospital fee (half amount)	6.00
Athletics	3.00
	$154.00
Fee for M.D. Degree (to be paid by four-year-course students only)	$30.00

FIFTH YEAR.

Class fees	$125.00
Caution money (deposit)*	10.00
Hospitals	10.00
Maternity Hospital (half fee)	6.00
Athletics	3.00
Fee for the Degree of M.D., C.M.†	30.00
	$184.00
Class fee for students repeating a session	$35.00

Repeating students must also pay in addition to the above, $3 for Athletics and make the usual caution money deposit of $10.

* The Caution money deposit is intended to cover breakages in the different laboratories, etc. The amount of the deposit, less deductions (if any) will be returned at the close of the Session.

† When the Degree is conferred in absentia an additional fee of twenty dollars will be exacted, unless the candidate has been specially exempted by the Faculty.

Fee for students from other colleges who have paid full fees there for courses to be taken..... $35.00

These students are also required to pay in addition $3 for Athletics, the Hospital fees exacted in the year to which they are admitted, and to make the usual caution money deposit of ten dollars.

An ad eundem fee of $10 will be charged students entering from another university in the Second, Third, Fourth or Fifth Year of the Course.

Partial Students will be admitted on payment of special fees.

Fee for Supplemental Examination..... $5.00
Fee for the Undergraduates' Society..... 1.00

(At the request of the students in this Faculty the above sum will be collected from each, at the time of the payment of the sessional fees.)

The fee for the regular Graduate Course will vary in proportion to the number of subjects taken. A registration fee of $5.00 will be exacted from each person taking this Course.

Fee for the Course in Public Health, and Diploma.. $50.00

FEES IN DENTISTRY.

Students in Dentistry pay the following fees for the whole course:—

For Tuition ($125 per year)..... $500.00
For Grounds and Athletics ($3 per year)..... 12.00
Graduation Fee 30.00

$542.00

They are also required to make a caution money deposit of $10.00 each year. This is intended to cover breakages in the different laboratories, etc., and will be returned, less deductions (if any), at the close of the Session.

FEES IN LAW.

(*For Regulations re payment, see page 64.*)

Registration Fee	$5.00
Sessional fee (including fee for athletics) for the undergraduate course	60.00
Athletics fee, payable by Partial Students	3.00
Graduation fee	12.50

Fees for Partial Students:—

For course in Roman Law	$20.00
For each of the following courses: Successions, Criminal Law, Commercial Law, Obligations, Civil Procedure	15.00
For each of the shorter courses	10.00

Caution Money.—Every student is required to deposit with the Bursar the sum of $5, as caution money, to cover damage done to furniture, loss of books, etc. This amount, less deductions (if any), will be returned at the close of the session.

Fee for the Degree of D.C.L.	$80.00

FEES IN THE GRADUATE SCHOOL.

For each year of the course leading to the Degree of M.A., M.Sc., or Ph.D.	$40.00
Graduation fee for M.A. or M.Sc.	20.00
" " " " (*In absentia*)	40.00
" " Ph.D.	30.00
" " D.Sc.	80.00
" " D.Litt.	80.00
" " LL.D. (in course)	80.00

The examination and graduation fee is payable when the candidate presents himself for examination and is not returnable if he is unsuccessful. If, however, a candidate for the Degree of M.A. or M.Sc. fails he may present himself

in a subsequent year without further payment of fees. A candidate for the Degree of D.Sc. or D.Litt. in case of failure may present himself in a subsequent year upon payment of an additional sum amounting to one-half of the usual fee for this Degree.

Lecturers, tutors and demonstrators in this University who are proceeding to the Degree of Master of Arts, Master of Science, or Doctor of Philosophy, shall be exempt from the tuition fees, but will be required to pay the fee for graduation in every case.

No fee shall be charged for the Degree of LL.D., granted "honoris causa."

MISCELLANEOUS FEES.

Elocution (optional)	$5.00
Library (optional for students in Medicine; included in sessional fee in the case of all others)	4.00
Gymnasium (optional for undergraduates in Law and Medicine, and also for partial students in all Faculties; included in sessional fee in the case of all others)	2.50
Fee for the McGill Union (optional and payable to the Bursar, or the Secretary of the Union)	5.00
Certificate of standing, as to year of Course	1.00
Certificate of standing, accompanied by a statement of classification in the several subjects of examination	2.00

All applications for certificates must be addressed to the Registrar of the University, accompanied by the required fee.

No certificates are given for attendance on lectures unless the corresponding examinations have been passed.

DEGREES.

I. ORDINARY DEGREES.

In order to obtain the Degrees of B.A.; B.Sc.; B.Arch.; B.C.L.; M.D., C.M.; and D.D.S., students are required to attend lectures (for length of courses, see pages 8 to 10), to complete the course of study for the Degree sought, to pass all the prescribed examinations during the course, and any special examinations for graduation, and to perform such other exercises as may be prescribed to that end.

The requirements for a Bachelor's Degree in the Faculty of Agriculture are given under "Macdonald College," and those for the Degrees in Music on page 179.

II. HIGHER DEGREES.

All theses for Higher Degrees should be sent to the Chairman of the Committee on Graduate Studies. No thesis will be received, or examination granted, until the fee for the Degree has been paid.

Degree of M.A.

Bachelors of Arts of at least one year's standing who, after graduation, shall have taken for one year a Graduate Course of Study in Arts in the University, previously submitted to and approved by the Committee on Graduate Studies, shall have passed an examination at the end of the year, shall have presented a satisfactory thesis (the title of which must have been previously approved by the Head of the Department concerned and by the Committee on Graduate Studies) and shall have performed such other exercises as may be prescribed to that end; *or* Bachelors of Arts of at least two years' standing who shall have presented a satisfactory thesis (the title of which must have been previously approved by the Head of

the Department concerned and by the Committee on Graduate Studies), shall have passed a special examination for the Degree, and shall have performed such other exercises as may be prescribed to that end,—the whole to the satisfaction of the Committee on Graduate Studies and also of any other examiners whom the Corporation may associate with that Committee—shall be entitled to the Degree of Master of Arts.

For detailed regulations regarding the Degree of Master of Arts, see under "Graduate School."

All theses for 1909-10 *must be in the hands of the Chairman of the Committee on Graduate Studies on or before April* 1*st,* 1910. *No thesis received after this date will be accepted. The examination will be held in April.*

Degree of M.Sc.

Bachelors of Arts, or Bachelors of Science, or Bachelors of Applied Science of at least one year's standing who, after graduation, shall have taken for one year a Graduate Course of Study in the Faculty of Arts, or the Faculty of Applied Science of the University, previously submitted to and approved by the Committee on Graduate Studies, shall have passed an examination at the end of the year, shall have presented a satisfactory thesis (the title of which must have been previously approved by the Head of the Department concerned and by the Committee on Graduate Studies), and shall have performed such other exercises as may be prescribed to that end; *or* Bachelors of Arts, or Bachelors of Science, or Bachelors of Applied Science of at least two years' standing, who shall have presented a satisfactory thesis (the title of which must have been previously approved by the Head of the Department concerned and by the Committee on Graduate Studies), shall have passed a special examination for the Degree and shall have performed such other exercises as may be prescribed to that end—the whole to the satisfaction of the Committee on Graduate Studies, and also of any other examiners whom the Corporation may associate with the Com-

mittee,— shall be entitled to the Degree of Master of Science. For detailed regulations regarding the Degree of M.Sc., see under "Graduate School."

All theses must be in the hands of the Chairman of the Committee on Graduate Studies on or before April 1st, 1910. No thesis received after this date will be accepted. The examination will be held in April.

Degree of D.Litt.

Candidates for the Degree of Doctor of Literature must be Masters of Arts, and graduates of at least five years' standing, who shall have distinguished themselves by special research and learning in the domain of literature or philosophy. They are required to present a satisfactory thesis or published work.

Degree of D.Sc.

Candidates for the Degree of Doctor of Science must be Masters of Arts, or Masters of Science, or Doctors of Medicine, and graduates of at least five years' standing, who shall have distinguished themselves by special research and learning in the domain of science. They are required to present a satisfactory thesis or published work.

Degree of Ph.D.

Bachelors of Arts, or Bachelors of Science, or Bachelors of Applied Science of McGill University, or graduates of other universities holding Degrees which shall be accepted by the Committee on Graduate Studies as the equivalent of any of these, who, after graduation, shall have taken a graduate course of study for three years, in the University, or at least one year in the University and not less than two years at some other recognized seat of learning, shall have passed an examination at the end of the course, shall have presented a satisfactory thesis, and shall have performed such other exercises as may be prescribed to that end, the whole to the satis-

faction of the Committee on Graduate Studies, and also any other examiners whom the Corporation may associate with that Committee, shall be entitled to the Degree of Doctor of Philosophy.

For detailed regulations, see under "Graduate School."

Degree of D.C.L.

Candidates for the Degree of Doctor of Civil Law must be Bachelors of Civil Law of at least twelve years' standing. They are required to pass a special examination for the Degree and to present a satisfactory thesis or published work on some subject selected or approved by the Faculty of Law. For details of the examination, etc., see under Faculty of Law, page 269.

Degree of LL.D.

Except as hereinafter mentioned, the Degree of Doctor of Laws is given only as an honorary Degree.

Any person who matriculated and attended lectures in the Faculty of Arts before the 31st January, 1899, may proceed to the Degree of Doctor of Laws, in course, upon the following conditions:—

Candidates for the Degree of LL.D., in course, must be Masters of Arts of at least twelve years' standing, and are required to prepare and submit to the Faculty of Arts, not less than three months before proceeding to the Degree, twenty-five printed copies of a thesis on some literary or scientific subject which has been *previously approved by the Faculty*. The thesis must exhibit such a degree of literary or scientific merit, and give evidence of such originality of thought or extent of research as shall, in the opinion of the Faculty, justify recommendation for the Degree.

Candidates are also required to submit, with their thesis, a list of books treating of some one branch of literature or of science satisfactory to the Faculty, in which they are prepared to submit to examination, and in which they shall be examined, unless otherwise ordered by the Faculty.

III. ADMISSION "AD EUNDEM GRADUM."

The following are the regulations applicable to admission "ad eundem gradum":—

Extract from the Statutes, Chap. VIII.

"Graduates of other universities, desirous of admission to "the like Degree in this University, may be so admitted by "the Corporation; due enquiry being first made as to their "moral character and sound learning, and opportunity given "to the several Faculties, or the Committee on Graduate "Studies, as may be required, to make such representation in "the premises as they may see fit. Provided always, that, "except in the case of candidates proceeding to a higher De-"gree, such admission shall not be put to vote until after "three months' notice, unless by unanimous consent, and shall "not be ordered, if as many as five members of the Corpora-"tion shall vote against it."

Extracts from the Regulations of the Corporation.

"In all cases in which anyone is proposed for any "ad "eundem" Degree, it shall be necessary for the member or "members of the Corporation making such proposal, to state "in writing therewith the grounds upon which the granting "of such Degree is advocated, and when the case shall be re-"ferred to the Faculties, under Chap. VIII. of the Statutes, "copies of such proposal and grounds shall be transmitted to "the Faculties by the Registrar for their consideration."

Note. In considering applications under the above regulations, the Faculties will require as "grounds" the pursuit of a course of study or research in this University; association with the academic work of the University; or similar qualifications.

Admission "ad eundem gradum" is not granted merely as a titular distinction.

"The Degree of Bachelor of Arts or Bachelor of Science, "ad eundem, shall be granted only to candidates who are "proceeding to a higher Degree, and admission to the lower "Degree shall be withheld until the higher Degree has been "granted."

"Graduates of all universities desiring an ad eundem "Degree of this University, as a condition of entering on "a course of study leading to a higher Degree, shall make "application to the Committee on Graduate Studies, who shall "thereupon report their recommendation to Corporation, "which body shall immediately take action without previous "reference to the various Faculties."

The Chairman of the Committee on Graduate Studies is Dr. Frank D. Adams.

CONDUCT AND ATHLETICS.

MORALS AND DISCIPLINE.

1. University discipline shall be exercised by the several Faculties, and by the Committee on Morals and Discipline, subject in the cases hereinafter mentioned to revision or confirmation by Corporation.

2. Subject to the provisions of the following section, each Faculty shall be entitled to exercise University discipline over its own students.

3. All cases of discipline involving the interests of more than one Faculty, or of the University in general, shall be dealt with by a Standing Committee of Corporation, to be known as the Committee on Morals and Discipline, which shall consist of the Vice-Principal, the Deans of the several Faculties, one member of the Board of Governors and another member of Corporation who must be outside of the University staff. The two members last named shall be appointed annually at the regular meeting of the Corporation in February. The Committee shall have power to add to their number the President and Vice-President of the Students' Court of Honour, in cases in which that body has taken action and made a report.

4. All such cases of discipline as are referred to in subsection 3 shall be reported to the Principal, or, in his absence, to the Vice-Principal, or, in the absence of both, to the senior Dean present in the City. If the Principal, or, as the case may be, the Vice-Principal or the Dean, deems action necessary, the matter shall be reported to the Committee on Morals and Discipline.

5. When sentence of expulsion or of suspension for more than three months has been pronounced by a Faculty, or

by the Committee on Morals and Discipline, the Corporation may entertain an appeal.

6. "University discipline" shall mean any appropriate method of exercising authority over students, and shall, but without prejudice to the foregoing generality, include the power of expulsion, suspension, disqualifying from competing for scholarships, exhibitions, medals, prizes or honours, imposing fines, not exceeding $25, on any student, levying assessments for damage done, reporting to parents or guardians and admonition.

7. Any student found guilty of immoral, dishonest, disorderly or improper conduct, or of wrongfully causing damage to person or property shall be liable to University discipline.

8. If on an occasion of general disorder on the part of a year, class, or group of students, damage be done to University property, or acts committed meriting discipline, and the individuals who have done such damage, or committed such acts, have not been discovered, an assessment to cover the damage may be laid, or a fine imposed, or both, on all the members of such year, class or group.

9. While in college, or in the college grounds, students shall conduct themselves in the same orderly manner as in the class-rooms. Smoking is prohibited in the college buildings, except in such rooms, if any, as may be set apart for that purpose. Any Professor observing improper conduct on the part of a student in the college buildings or grounds may admonish him, and, if necessary, report him to the Dean of the Faculty in which he is enrolled. Without, as well as within the walls of the college, every student is required to maintain a good moral character.

COLLEGE GROUNDS AND ATHLETICS.

The management of the college grounds and of out-door athletics and sports is under the control of the Athletics Committee of Corporation.

This Committee is responsible for the general maintenance of all University grounds and retains the ultimate authority and power of supervision in all matters affecting athletics in the University.

The following extracts are made from the rules and regulations of the Committee, for the guidance of members of the University and the several athletic clubs and associations which are from time to time permitted to use the grounds:

During the summer season the Sherbrooke Street gates shall be closed between 10 p.m. and 6 a.m. every day, and the University and McTavish Street gates between 6 p.m. and 7 a.m. on week days and the whole day on Sunday.

Such persons as are entitled to use the grounds shall be provided with tickets renewable each year. Those entitled to tickets are the members of the University and prominent benefactors, and the families of Governors and Professors.

The several Clubs may be permitted to issue special tickets, entitling the holders to admission to the grounds for the purpose of viewing matches, or for other special occasions of public interest.

All students desirous of taking part in football matches, or otherwise engaging in violent athletic contests, must pass a medical examination, to be held under the direction of the Medical Director of Physical Training. A complete record of all such examinations shall be kept by the Director or some other officer appointed to this duty. The managers and captains of Clubs, or other responsible executive officers, are required to insist upon the strict observance of the rule in regard to medical examination, and all the rules and regulations of the Committee which concern them.

All Clubs must submit their regulations, rules, and by-laws, and any changes in the same, for the approval of the Committee. They must make application for the use of

such portions of the grounds as they require, and for any special privileges.

Clubs must not engage in matches with outside clubs except with the approval of the Committee.

The Athletic Association must submit its programme for each year for the approval of the Committee.

All students in good standing who are taking a course of study held to be sufficient by a special Committee of the Faculty in which they are enrolled will be allowed to take part in athletics, subject, however, to the general regulation regarding medical examination.

Suspension from lectures for any cause, or absence from more than one-eighth of the total number of lectures given in any course, as shown by the monthly reports furnished to the Dean of each Faculty by the several Professors and Lecturers, shall be considered as sufficient ground to disqualify a student for engaging in athletic contests.

All students of the University are required to pay a fee of three dollars ($3.00) for the use of the grounds. (This fee is included in the sessional fee except in the case of students in Medicine.) The amount so paid is handed over to the Executive of the Students' Council, less about $800, which is expended in the upkeep of the grounds in connection with athletics, and is by this body expended in the interest of college athletics.

The amount derived as grounds and athletics fees from the students of the Royal Victoria College is placed at the disposal of the Committee in charge of the grounds, for expenditure in the interests of women-students.

The annual sports of the University are held on the second Friday of October in each year. The day is observed as a holiday.

UNIVERSITY ATHLETIC ASSOCIATION.

All matters connected with athletics at the University are under the direct supervision of the University Athletic Association, which, in turn, is responsible to the "Athletics

Committee of Corporation." The executive of the Athletic Association consists of the presidents of the various clubs of the Association, twelve in number.

The Track Club has its special field in regulating and encouraging "Track and Field Athletics." The management of the Inter-class sports and of the annual University sports is in the hands of this club.

The Rugby Football Club is represented by a senior and intermediate team in the Intercollegiate Union, and a junior team in the Q.R.F.U. In addition to these championship matches, a series of inter-class matches is played annually for the "Wood Cup."

The Skating and Hockey Club has a well established reputation. As in football, a series of inter-class games is played annually, in this case for the "Capper Trophy."

The Association Football Club, the Basket-Ball Club, the Boxing Club, the Cricket Club, the Harriers' Club, the Lawn Tennis Club, the Wrestling Club, the Fencing Club, and the Swimming Club, are the remaining clubs under the Association. Most of them conduct inter-class matches, and have a senior team, which represents the University in outside matches.

GYMNASIA.

(1) *The University Gymnasium.*

Medical Director of Physical Training—F. W. Harvey, B.A., M.D.

Instructor:—W. J. Jacomb.

The classes, which are open to men students of all Faculties, will meet at the University Gymnasium at hours to suit, as far as possible, the convenience of students.

Instruction, apart from the regular classes, is given in boxing, wrestling, fencing, jiujitsu and swimming, for each of which a special fee is required.

Special attention is given to the application of exercise in treating cases of weakness or deformity.

The Wicksteed Silver and Bronze Medals for Physical Culture (the gift of Dr. R. J. Wicksteed) are offered for competition to students of the graduating class and to students who have had instruction in the gymnasium for two sessions; the silver medal to the former, the bronze medal to the latter.

The award of these medals is made by judges appointed by the Corporation of the University.

Every competitor for the silver medal is required to lodge with the judges, before the examination, a certificate of good standing in the graduating class, signed by the Dean or Registrar of the Faculty to which he belongs, and the medal will not be awarded to any student who may fail in his examination for the Degree.

(2) *The Royal Victoria College Gymnasium.*

Instructor:—Miss E. M. Cartwright.

Classes for women-students are conducted in the gymnasium of the Royal Victoria College, at hours arranged to suit the convenience of the students, all of whom are required to pass a satisfactory medical examination before engaging in basket ball, or other exercises in the gymnasium. Undergraduate students of the First Year are required to take regular physical exercise in the gymnasium amounting to two periods per week; undergraduate students of the Second Year for two short periods a week; undergraduate students of the Third Year for one period a week.

The Strathcona prizes of $10 and $20 are open for competition to students of the Second and Fourth Years respectively, under the following regulations:—

(1) Competitors must be able to show an attendance of 65% on the gymnastic classes throughout the session.

(2) No prize shall be awarded unless the judges consider the work up to a standard of 75%.

(3) The prize shall be awarded if one candidate reach the required standard, even if there be no competition.

(4) The prize shall not be awarded should the winner fail in obtaining her full academic standing.

(5) A programme from which the exercises are to be chosen will be posted in the gymnasium at the beginning of each session (not later than October 15th of each year), and the actual programme of the competition will be posted not later than January 15th.

(6) Judges for these competitions shall be appointed yearly by the Corporation, on the recommendation of the Medical Director of Physical Training.

ACADEMIC DRESS.

Professors, lecturers and students are required to wear academic dress at lectures, except in those cases in which a dispensation shall have been granted by the Faculty.

Undergraduates shall wear a plain black stuff gown, not falling below the knee, with round sleeve cut above elbow.

Bachelor of Arts.—Black stuff gown, falling below knee, with full sleeve cut to elbow and terminating in a point (similar to that of the Cambridge B.A.); hood, black silk, lined with pale blue silk and edged with white fur.

Bachelor of Science.—The same gown as Bachelors of Arts; hood, black silk, lined with yellow silk and edged with white fur.

Bachelor of Civil Law.—The same gown as Bachelors of Arts; hood, black silk, lined with French grey silk and edged with white fur.

Master of Arts.—Black gown of stuff or silk, falling below knee, with long sleeve with semi-circular cut at the bottom (similar to that of the Cambridge M.A.); hood, black silk, lined with pale blue silk.

Master of Science.—The same gown as Masters of Arts; hood, black silk, lined with yellow silk.

Doctor of Medicine.—The same gown as Masters of Arts; hood, scarlet cloth, lined with dark blue silk.

Doctor of Laws.—The same gown as Masters of Arts; hood, scarlet cloth, lined with white silk.

Doctor of Literature.—The same gown as Masters of Arts; hood, scarlet cloth, lined with pale blue silk.

Doctor of Science.—The same gown as Masters of Arts; hood, scarlet cloth, lined with yellow silk.

Doctor of Civil Law.—The same gown as Masters of Arts; hood, scarlet cloth, lined with French grey silk.

Doctors of Laws, Doctors of Civil Law, Doctors of Literature, and Doctors of Science shall be entitled to wear for full dress a robe of scarlet cloth (similar in pattern to that of the Cambridge LL.D.) faced with silk of the same colour as the lining of their respective hoods.

All hoods shall be in pattern similar to that of the Masters of Arts of Cambridge University.

Undergraduates and graduates shall wear the ordinary black trencher with black tassel, but Doctors of Laws, Doctors of Civil Law, Doctors of Literature, and Doctors of Science shall wear for full dress a black velvet hat with gold cord, similar to that worn by Doctors of Laws of Cambridge University.

Samples of the colours of the linings of all hoods shall be kept for inspection in the office of the Registrar.

THE UNIVERSITY LIBRARY.

C. H. GOULD, B.A., Librarian.

The University Library is under the general management of a Committee of Corporation, consisting of the Principal, Chairman; the Librarian, Secretary; two members of the Board of Governors; one Representative Fellow, appointed by Corporation; two representatives of the Faculty of Arts, elected by the Faculty; one representative of each of the Faculties of Applied Science, Law and Medicine, elected by their respective Faculties; and four other members appointed by Corporation.

The several libraries of the University now contain 121,000 volumes, over 20,000 pamphlets, and considerable collections of maps and of photographs.

In addition to providing for the symmetrical growth of the Library, the Committee has been enabled, through generous gifts, to acquire a number of the rarer and more costly monographs and serials which are indispensable for research, there being now on the shelves nearly 300 complete fyles of periodicals and publications of various literary and scientific societies. Many of these have been added through the liberality of Sir William C. Macdonald.

Among the special collections, exclusive of departmental libraries, mention should be made of the *Redpath Historical Collection*, formed by the late Mr. Peter Redpath some years before his death, and, from that time forward, steadily augmented during the remainder of her life, by his widow. It is now of great value, and affords excellent opportunities for the study of English History. The most striking feature of the collection—a series of political and religious tracts—was greatly enriched by the late Mrs. Redpath, and

now comprises about 10,000 brochures, dating from 1600 to the end of the nineteenth century.

Abundant materials, bearing upon the History of Canada have been gathered together. Of these the nucleus is formed by the entire library of the late Mr. Frederick Griffin, whose choice books were, some years ago, bequeathed to the University. This branch of the library is growing, and includes, besides important manuscripts, an interesting collection of Canadian portraits and autographs.

The Medical Library, directly controlled by the Faculty of Medicine, is the largest of the departmental libraries, and is one of the most complete collections of its kind in the Dominion.

Current periodicals, with Transactions and other Society publications to the number of about 375 in the aggregate, are regularly received by the Library.

During the autumn of 1900, members of the family of the late Mr. Hugh McLennan generously enabled the Library Committee to establish a system of travelling libraries, and have since provided for the maintenance and operation of the system. The libraries are sent on application, and on payment of a nominal fee of $3.00, to any point in Canada. Regulations and full particulars may be obtained from the Librarian of the University.

Although the library is maintained primarily for members of the University, the Corporation has provided for the admission, upon certain conditions, of such persons as may be approved by the Library Committee. It is the desire of the Committee to make the library as useful to the entire community as is consistent with the safety of the books and the general interests of the University.

EXTRACTS FROM THE LIBRARY REGULATIONS.

1. During the College Session the Library is open daily (except Sundays and general public holidays), from 9 a.m. till 6 p.m., and from 7.30 till 10.30 p.m. On Saturdays, the

Library closes at 5 p.m. During vacations, the Library closes at 5 p.m., and on Saturdays at 1 p.m.

2. Students in the Faculties of Arts, Law, and Applied Science are entitled to read in the Library, and may borrow books (subject to the regulations) to the number of three volumes at one time.

3. Students in the Faculty of Medicine, who have paid the Library fee to the Bursar, may read in the Library, and on depositing the sum of $5 with the Bursar, may borrow books on the same conditions as students in other Faculties. They are required to present their Matriculation Tickets to the Bursar and to the Librarian.

4. Graduates in any of the Faculties, on making a deposit of $5, are entitled to the use of the Library, subject to the same rules and conditions as students in Arts, Law, or Applied Science.

5. Books may be taken from the Library only after they have been charged at the Delivery Desk: borrowers who cannot attend personally must sign and date an order, giving the titles of the books desired.

6. Books in the Reference Library must not be taken from the Reading Room; and, after they have been used, they must be returned promptly by readers to their proper places upon the shelves.

7. Before leaving the Library, readers must return the books they have obtained to the attendant at the Delivery Desk.

8. All persons using books remain responsible for them so long as the books are charged to them, and borrowers returning books must see that their receipt is properly cancelled.

9. Writing or making any mark upon any book belonging to the Library is unconditionally forbidden. Any person found guilty of wilfully damaging any book in any way shall be excluded from the Library; and shall be de-

barred from the use thereof for such time as the Library Committee may determine.

10. Damage to or loss of books, maps, or plates, and injury of Library fixtures, must be made good to the satisfaction of the Librarian and of the Library Committee.

Damage, loss or injury when the responsibility cannot be traced will be made good out of the caution money deposited by students with the Bursar.

11. Should any borrower fail to return a book upon the date when its return is due, he may be notified by postal card of his default, and be requested to return the book. If the loan is not renewed, or the book returned, after a further delay of at most three days, it may be sent for by special messenger, at the borrower's expense.

12. Before the close of the session, students in their final year must return uninjured, or replace to the satisfaction of the Librarian, all books which they have borrowed.

13. Silence must be strictly observed in the Library.

14. Infringement of any of the rules of the Library will subject the offender to a suspension of his privileges, or to such other penalty as the nature of the case may require.

McGILL COLLEGE BOOK CLUB.

ESTABLISHED A.D. 1869.

This Club is in the 41st year of its existence, and has for its two-fold object to procure an early supply of new books (novels excluded) for its members, and the increase of the Library. By this means an addition has already been made to the Library of not less than 4,000 volumes in special and general literature.

Membership in the Club is open to all, at an annual subscription of ten dollars.

Apart from the advantages to be directly derived from membership, there is the special privilege accorded to members of using the College Library on the same conditions

as graduates, without being required, however, to make a deposit when books are borrowed.

The members of the Executive Committee are as follows:—Dr. Alex. Johnson; F. P. Walton, B.A., LL.B., LL.D.; Mr. G. B. Cramp, K.C.; Dr. Andrew Macphail; Wm. Gardner, M.D.; F. J. Shepherd, M.D., and Mr. G. A. Farmer, to any of whom application for membership may be addressed, or to Mr. E. M. Renouf, Secretary, at the Club's Depository, 472 St. Catherine Street West.

SPECIAL INFORMATION REGARDING THE FACULY OF ARTS.

THE SESSION 1909-1910 WILL OPEN ON FRIDAY, OCTOBER 1ST, 1909. STUDENTS ENTERING THE UNIVERSITY WILL REGISTER AT THE REGISTRAR'S OFFICE ON THE 28TH, 29TH AND 30TH OF SEPTEMBER; STUDENTS PREVIOUSLY ENROLLED WILL REGISTER IN THE SAME PLACE ON OCTOBER 1ST.*

Information on the following matters will be found by referring to the pages mentioned:—

	PAGES
Admission of partial students	14
Attendance	36
Exhibitions and Scholarships	42
Fees	65
Matriculation	22
Medals and Prizes	60
Summer Classes	16

For Time Tables of Lectures and Examinations, see first part of Calendar.

REGULATIONS FOR THE DEGREE OF B.A.

After passing the matriculation examination, an undergraduate, in order to obtain the Degree of B.A. or B.Sc., is required to attend regularly the appointed courses of lectures for four years. (Undergraduates are arranged in years, from First to Fourth, according to their academic standing.) The conditions of passing into the last three years of the undergraduate course are stated on page 105.

* For full particulars regarding registration see page 36

Before October 10th (except in special cases), every undergraduate is required to submit to the Faculty, through the Dean's office, for approval, a written statement of the subjects he proposes to study during the session. He will not be allowed to discontinue any of these, if approved, or begin or obtain credit for an examination in any other, without the special permission of the Faculty.

I. ORDINARY COURSE FOR THE DEGREE OF B.A.

First Year.

Greek, 1 *or* 2, (page 110) *or* Latin, 1, (page 112).
English, 1A, 1B (page 117) and History, 1 (page 144).
Mathematics, 1—Algebra, Geometry and Trigonometry—(page 149).
Latin, 1(page 112),*or* Greek, 1 *or* 2(page 110),*or* French, 1, 2(page 124), *or* German, 1 *or* 2 (page 127), *or* Spanish, (page 131).
Physics, 1 (page 153).

B.A. students taking both French and German in the First Year may be exempted from First Year Physics, which they are required to take in the Second Year, together with some half-course of the Second Year. Such students may take their Second Year Science subject in the Third or Fourth Year and shall be required to obtain at least 50 per cent. of the maximum number of marks given to it.

German may be taken instead of Trigonometry by students who intend to read for Modern Language or English Honours. This option will, however, be granted only on the recommendation of the Departments concerned.

French cannot be taken as a qualifying option in the First Year, except by students who have passed the matriculation examination in this subject.

An additional language may be taken as an extra subject in the first two years if application be made to, and permission obtained from the Faculty at the beginning of the session. Credit will be given for it on application.

First Year students are under the immediate direction of an Advisory Committee, consisting of all the members of the staff who are engaged in their instruction. A system of sup-

plementary tutorial teaching is now in operation in this Year. For regulations regarding advancement to the Second Year, see page 105.

Advanced Courses.—A student qualified to take work of a more advanced character than the ordinary work of the First Year in any subject, shall, with the consent of the B.A. Advisory Committee, take such advanced work in that subject as the Department concerned may recommend, or may substitute another ordinary subject for the subject in question. This regulation applies only to students whose qualifications are of exceptional character.

Students taking the work of advanced courses may be excused from the work of the corresponding ordinary courses, on the recommendation of the Professor. No exemptions from other subjects will be granted to students in advanced courses.

An outline of the First Year Course for the Diploma of Commerce will be found on page 172.

Second Year.

English Composition, 2B (page 117).
Latin, 2 (page 113) *or* **Greek, 3 (page 110).**
and *three* of the following:
Greek, 3 (page 110) *or* **Latin, 2 (page 113).**
English, 2A (page 117).
French, 3, 4 (page 125).
German, 3 (page 128).
Semitic Languages, A (1) and B (page 133).
Psychology and Logic, 1A and 1B (page 138).
Economics, 2 (page 146) and History, 2 (page 144).
Mathematics, 2 (page 150).
Elementary Biology [Zoology, 1A (page 167) and Botany, 1 (page 162.)
Chemistry, 1 (page 155).
Physics, 2 (page 154)—only for students taking the advanced course in Mathematics.

Students intending to take the double course in Arts (B.A.) and Applied Science must take Mathematics and Chemistry; those intending to take the double course in Arts (B.A.) and Medicine must take Chemistry and Biology.

Advanced Courses will be offered in the Second Year as in the First.

Students taking an advanced course may be excused from the work of the corresponding ordinary course, on the recommendation of the Professor. An exemption from one other of the three subjects specified above may be granted to Honour students in Mathematics who take both the ordinary and the advanced course in Mathematics, but to no others.

An outline of the Second Year Course for the Diploma of Commerce will be found on page 172.

For regulations regarding advancement to the Third Year, see page 106.

Third and Fourth Years.

The subjects of the Third and Fourth Years are arranged in the following divisions:—

Language and Literature.	History, Philosophy and Law.	Science.
English, 3A, 3B, 4A, 4B and 3 C and 4 C (page 118).	Philosophy, 2, 3, 4 *or* 5 (page 138).	Mathematics, 3 (page 150).
Latin, 3 (page 113).	History, 3 (page 145).	Mechanics, 4 (page 155), and Astronomy, 4 (page 150). (Two half courses)
Greek, 4 (page 111).	†Economics, 2 (page 147)	Physics: Sound, Light, Heat (full course), 2 (page 154).
Sanskrit, 1A, 1B (page 115).	Political Science, 3 (page 147).	Electricity and Magnetism (full course), 3 (page 154).
Comparative Philology (half course), A, B (page 116).	Education (page 148).	Chemistry, 2, 3, 4; 5, 6; *or* 7, 8 (page 156).
French, 5 (page 126).	Constitutional Law (page 149) (half course).	Geology, 2 (page 158).
German, 4 (page 129).	Roman Law (page 149).	Zoology, 2 (page 167).
Italian, in alternate years (page 130).		Botany, 2, 3 (page 163).
Semitic Languages, A (2), A 3 and C (page 133).		*Physiology.
		*Anatomy.

* These courses in the Faculty of Medicine are accepted as the equivalents of ordinary courses in the Faculty of Arts in the case of Double Course students in Arts and Medicine, but not otherwise.

† This subject can be selected only by students who have studied it in the Second Year.

From the above divisions six courses are to be selected by each student in the Third and Fourth Years, three in each Year. Each will be studied in lecture courses extending over not more than four hours per week, with collateral reading, and, in the case of the science subjects, laboratory work. One subject chosen in the Third Year ***must*** be continued by every student in his Fourth Year (Political Science, 3, will be accepted as a continuation of Economics, 2, and *vice versa*); two subjects ***may*** be continued if application to that effect be granted by the Faculty or the Advisory Committee of the Faculty. Of the whole six courses, one ***must*** and three ***may*** be chosen by all candidates from the list of subjects included under the head of Science, except when Chemistry or Biology has been selected as an option in the Second Year, in which case no science subject need be taken. Lectures in Honour Courses are open to candidates for the ordinary degree in the Third and Fourth Years, and may be substituted by them for an equivalent amount of the work prescribed for that Degree in the proper year.

In addition to the six courses, a course of one hour a week in English Composition (3C, 4C) must be taken by every candidate for the ordinary B.A. Degree in the Third and Fourth Years, and also by Honour students in English.

The Advisory Committee will meet not later than October 1st in each session, and will report to the Faculty on the subjects selected by students in each of the four Years.

In order to obtain an ordinary B.A. Degree of the first class, a candidate must obtain not only the required aggregate of marks (viz., three-fourths of the maximum), but also first class standing in three of his subjects, and not less than second class in any subject.

For arrangements whereby a student can take the course in Arts and Applied Science or Law in six years, or Arts and Medicine in seven years, see page 107.

II. HONOUR COURSES FOR THE DEGREE OF B.A.

Honours of First, Second, or Third Rank will be awarded to successful candidates in any Honour Course established by the Faculty, provided they have passed creditably the regular examinations in all the subjects proper to their Year.

A student proposing to read for an Honour Course:—

(1) Must satisfy the Department of his qualifications to proceed with the subject or subjects in question;

(2) Must, while attending lectures, make progress satisfactory to the Department. In case his progress is not satisfactory he may be notified by the Faculty to discontinue attendance.

Students who wish to graduate with Honours in any subject are strongly recommended to take the Advanced Courses in these subjects in the First and Second Years, where such are provided.

A candidate for Honours must take the ordinary course in the subject in which he is reading for Honours, but where the Honour Course corresponds to two ordinary subjects, a candidate may, at the discretion of the Department, be exempted from attendance on lectures in these ordinary subjects for a number of hours not exceeding four weekly. In addition to the ordinary subject specified above, he is required to take a second ordinary subject, which may be determined by the Department in which he is a candidate for Honours. The Faculty may, on the recommendation of the Department, exempt any student from the obligation to take a second ordinary subject.

A student who desires to be a candidate for B.A. Honours must have taken at least Second Rank Honours in the Third Year. In this case he shall be required to take only one subject in his ordinary course, viz., that in which he is reading for Honours. A candidate, however, who obtains Third Rank Honours at the B.A. Examinations, will not be allowed credit at the end of the session for the exemption from other ordin-

ary subjects, unless the examiners certify that his knowledge of the whole Honour Course is sufficient to justify it.

Honour lectures are open to all partial students who can satisfy the Professor of their fitness to proceed with the work of the course. Such students will not be ranked with undergraduates in the examination lists. They are also open to candidates for the ordinary Degree in the Third and Fourth Years, and may be substituted by them for an equivalent amount of the work prescribed for that Degree in the proper year.

No student is allowed to attend two Honour Courses without the special permission of the Faculty.

Note.—For subjects of Ordinary Course, see pages 93 to 95.

The Honour Courses offered are as follows:—

I. CLASSICS.

Third Year:—Greek—Lecture Courses, 4, 5 (page 111).
Latin— " " 3, 4 (page 113).
Fourth Year:—Greek—Lecture Courses, 4, 5 (page 111).
Latin— " " 3, 4 (page 113).

II. LATIN AND ENGLISH.

Third Year:—Latin—Lecture Courses, 3, 4 (page 113))
English— " " 5 and three other courses chosen from 9, 10, 11, and 12 (page 120).
Fourth Year:—Latin—Lecture Courses, 3, 4 (page 113).
English—One hour per week of Language, and three of the courses enumerated above which have not been taken in the Third Year.

III. LATIN AND FRENCH.

Third Year:—Latin—Lecture Courses, 3, 4 (page 113).
French—Lecture Courses, 5, 7, 9 (page 126).
Fourth Year:—Latin—Lecture Courses, 3, 4 (page 113).
French—Lecture Courses, 5, 7, 9 (page 126).

IV. LATIN AND GERMAN.

Third Year:—Latin—Lecture Courses, 3, 4 (page 113)
German—Lecture Courses, 4, 6, 8 (page 129).

Fourth Year:—Latin—Lecture Courses, 3, 4 (page 113).
German—Lecture Courses, 4, 6, 8 (page 129).

V. ENGLISH.

Third Year:—Lecture Courses, 3A, 3B, 3C, 5, 10, 11, 12, and 13 (page 118).

Fourth Year:—Lecture Courses 4A, 4B, 4C and *either* 6, 7, 8, *or* 10, 11, and 12, with one hour a week in Language (6), (page 119).

VI. MODERN LANGUAGES.

Third and Fourth Years:—French—Lecture Courses, 5, 7, 9 (page 126).
(Session 1909-10) German—Lecture Courses, 4, 6, 8 (page 129).
Comparative Philology (for Third Year students) (page 116)

Third and Fourth Years:—French—Lecture Courses, 6, 8, 9 (page 126).
(Session 1910-11) German—Lecture Courses, 5, 7, 8 (page 129).

VII. ENGLISH AND FRENCH.

The courses in English and French will be the same as are prescribed in the first case for the Honour Course in Latin and English (II), and in the second for the Course in Latin and French (III).

VIII ENGLISH AND GERMAN.

The courses in English and German will be the same as are prescribed (in the case of English) for the Honour Course in Latin and English (II), and (in the case of German) as under Latin and German (IV).

IX. SEMITIC LANGUAGES.

One of the following:—

Hebrew and one other Semitic language (page 134).
Arabic and one other Semitic language (page 135).
Aramaic and one other Semitic language (page 136).

X. GREEK AND HEBREW.

Third Year:—Greek—Lecture Courses, 4, 5 (page 111).
Hebrew— " " (page 133).
Fourth Year:—Greek—Lecture Courses, 4, 5 (page 111).
Hebrew— " " (page 133).

XI. MENTAL AND MORAL PHILOSOPHY.

Third Year:—Lecture Courses 5A, 5B; *or* 7 with 8 or 9 (page 140).
Fourth Year:—Lecture Courses 11, 12, 13, 14 (page 142).

XII. ECONOMICS AND POLITICAL SCIENCE.

Third Year:—Courses 2, 3, 6, 7; together with ordinary History, or French, or Philosophy, or Roman Law of the Third Year.
Fourth Year:—Courses 6, 7, 8, 9, 10; together with a half course in History, French or Philosophy, as arranged in consultation with the Department.

XIII. HISTORY

The lecture courses are shown on pages 145 and 146, but, in addition to what is there specified, a certain amount of work must be done in another Department, as may be arranged with the Professor of History.

XIV. HISTORY AND ENGLISH.

Third Year.—History—Lecture Courses 3, 5, 10 (page 145), and thesis in connection with Course **10.**

English—Any courses aggregating six hours a week may be chosen from the programme of the English Department for the Third and Fourth Years (pages 118 to 123).

Fourth Year:—History—Lecture Courses 4, 8, 10 (page 145).

English—Any courses aggregating six hours a week may be chosen from the programme of the English Department for the Third and Fourth Years, so long as these courses have not already been taken by the student in his Third Year (pages 118 to 123).

A special thesis of advanced character is also exacted from Fourth Year Honour students in History and English.

XV. MATHEMATICS AND PHYSICS.

Third Year:—Mathematics—Lecture Courses 8, 9, 10, 11 (page 151).

Physics—Lecture Courses 3, 4, 5 (in part) (page 154).

Fourth Year:—Mathematics—Courses selected from 12, 13, 14, 15 (page 151).

Physics—Lecture Course 5 (page 155).

XVI. CHEMISTRY.

Third Year:—Chemistry—Lecture Courses 2, 3, 4 (page 156).

(Extra reading and laboratory work.)

Physics—Lecture Course 2 (page 154).

A half-course in Calculus or Biology, or Geology, or Mineralogy.

Fourth Year:—Chemistry—Lecture Courses 5, 6, 7, 8 *or* 7, 8, 9 (page 156).

Physics—Lecture Course 3 (page 154).

XVII. GEOLOGY AND MINERALOGY.

Third Year:—Geology—Lecture Course 2 (page 158).

Mineralogy—Courses 3 and 4 (page 159).

Zoology—Lecture Course 2 (page 167).

Chemistry—Lecture Course 2 or 3 and 4 (page 156).

Fourth Year:—Geology—6, 7, 8, 9, 10 and 11 (page 159), Lectures, Laboratory Work, Field Work, Colloquium, Reading.
Mineralogy, 5 (page 159).
Botany, one half-course, 3*a* (page 103).

XVIII. BIOLOGY.

Third Year:—Botany—Lecture Course 2 (page 163), and a special course of reading and weekly themes.
Zoology—Lecture Courses 1B, 2 (page 167). and Darwin's Origin of Species.
Geology—Lecture Course 2 (page 158).

Fourth Year:—Botany—Lecture Course 3 (page 163), and a special course of reading and weekly themes.
Zoology—Lecture Courses 3A and 3B (page 168) and essays on selected subjects.

3. HONOUR COURSES FOR SPECIALISTS IN ONTARIO.

A number of courses, leading to a Degree in Honours in McGill University, and qualifying for specialists' standing in the province of Ontario, have been accepted by the Education Department of that Province. Full details of these courses may be obtained on application to the Dean of the Faculty of Arts. The provincial regulation as to specialists' standing in Ontario is as follows:—

"51. (1) Any person who obtains a Degree in Arts in the Honour Department of Mathematics, Science, Classics, English and History, Moderns and History, or French and German, as specified in the Calendar of any University in Canada and accepted by the Education Department, who has graduated with at least second class Honours (or 66 per cent., in each subject of such Honour Department) and who has been in actual attendance in such department at a University for not less than two academic years, shall

be entitled to the non-professional qualification of a specialist in such Department."

Graduates of McGill University who, having taken any of these courses, have obtained the necessary standing in Honours, as stated in the foregoing regulation, will, on attending such courses and passing such examinations in subjects relating to the Art of Teaching and School Management as are prescribed by the Department of Education of the Province of Ontario, be qualified as specialists in that province. Undergraduates will not be permitted to substitute these courses for those of the regular McGill curriculum, except as a whole.

4. ORDINARY COURSE FOR THE DEGREE OF B.Sc. (ARTS).

The B.Sc. course in Arts has been specially arranged to give the student a thorough training in science, combined with a good knowledge of English, French, and German. A wide range of sciences may be studied, and the course differs from those offered in the Faculty of Applied Science in the substitution of modern languages for the more purely technical work of that Faculty.

A high standard of attainment will in all cases be exacted, and it is expected that in the Final Year the course will include instruction in the methods of modern research.

First Year.

English, 1A, 1B (page 117), and History, 1 (page 144).
French, 1, 2 (page 124),
German, 2 (page 128).
Mathematics, 1 (page 149).
Physics, 1 (page 152).

Second Year.

English Composition, 2B (page 118).
French, 3, 4 (page 125).
German, 3 (page 128).
Chemistry, 1 (page 155)—Laboratory work in addition.
Mathematics, 2 (page 150) *or* Elementary Biology (pages 162 and 167).

(*a*) Upon entering the Second Year, the student must decide upon the general character of the course which he will follow in the Third and Fourth Years. If his course in these Years is to consist chiefly of Mathematics and Physics, he must choose Mathematics; if it is to be chiefly biological or geological, he must take Biology; while if he intends to select Chemistry, he must take Mathematics if he intends to devote special attention to Physical Chemistry, but Biology if he intends to make special study of other branches of this science.

(*b*) A candidate for the Degree of B.Sc. must obtain at least 50 per cent. of the marks allowed in both French and German, and shall be required to pass, in addition, an examination which will show that he can read with ease at sight in both languages.

(*c*) The student shall, in the Third Year, take a full course in three of the following sciences, viz.:—Mathematics, Physics, Chemistry, Zoology, Botany, Geology. He shall take, in addition, a portion of the B.A. Honour Course in one of them, as well as a course in English Composition.

(d) In the Fourth Year the student shall devote his time chiefly to advanced work in one of the three sciences which he has already studied in the Third Year. The course which he is to follow will be drawn up by the Professors of the science which he selects and must be approved by the B.Sc. Advisory Committee. He shall take, in addition, a course in English Composition.

With the consent of the B.Sc. Advisory Committee a half course in Education may be taken by students in this course, in each of the Third and Fourth Years, as an option for one of the science subjects prescribed above.

B.Sc. Students of the Third and Fourth Years who obtain first class standing with a total average of 80 per cent., will be awarded Honours.

EXAMINATIONS IN ARTS.

1. There are two examinations in each year, viz., at Christmas and at the end of the Session. Successful students are arranged in three classes at the sessional examinations. Those who obtain 75 per cent. and over are placed in the First Class, those who have between 60 and 75 per cent. in the Second Class, and those with from 40 to 60 per cent. in the Third Class.

Christmas examinations will be held in all the subjects of the First and Second Years, and are obligatory on all undergraduates, and also on all partial students of the First Year, unless they have been specially exempted. Partial students of the First Year, who fail in the Christmas examination, will be requested to withdraw from the class. Twenty-five per cent. of the marks given for the sessional work in each subject will be assigned for the results of the Christmas examinations. Students prevented by illness from attending the Christmas examinations will, on presenting a medical certificate, be given sessional standing on the results of the April examinations. Christmas Examinations in the Third and Fourth Years may be held at the option of the Professors. When held, the same value will be assigned to them as in the case of the First and Second Years.

2. The following are the regulations for advancement to the Second, Third and Fourth Years of the undergraduate course and are subject to the condition that a student shall not be allowed to continue a subject of the preceding year in which he has not made good his standing, except in the case of compulsory subjects in the Second Year.

Advancement to the Second Year—A student who has failed to complete one of the ordinary courses of the First Year may enter the Second Year without special permission of the Faculty.

A student who has failed to complete two of the ordinary courses of the First Year shall be permitted to enter the

Second Year but only on the condition that an average of 50% has been obtained in the other subjects of the First Year Course.

Advancement to the Third Year.—A student may be allowed to proceed to the Third Year with one subject uncompleted if that subject belongs to the Second Year.

Advancement to the Fourth Year—A student may be allowed to proceed to the Fourth Year with one subject uncompleted if that subject belongs to the Third Year.

Repeating Year.—By special permission of the Faculty, a student who is required to repeat his year may on application in writing:—

(a) be exempted from attending lectures and passing examinations in the subjects in which he has already passed.

(b) be permitted to take, in addition to the subjects in which he has failed, one of the subjects of the following year of his course.

N.B.—The choice of subjects must involve no conflict of hours as printed in the Time-table.

3. Examinations supplemental to the sessional examinations will be held in September, simultaneously with the matriculation examinations. The time for each supplemental examination will be fixed by the Faculty; the examination will not be granted at any other time, except by special permission of the Faculty, and on payment of a fee of $5.

The examination at the end of the Summer School in any subject will, for those who attend this school, be reckoned as a supplemental examination.

4. A list of those to whom the Faculty has granted supplemental examinations in the following September will be published after the sessional examination.

DOUBLE COURSES.

ARTS AND APPLIED SCIENCE.

Students who wish to obtain the Degrees of B.A. and B.Sc. (Applied Science) in six years will spend the first three years

DOUBLE COURSE IN ARTS AND MEDICINE.

Subjects to be Taken in the Faculty of Arts.

First Year.

The curriculum as laid down for the B.A. Degree in this year, except that a modern language *must* be taken.

Second Year.

English Composition.
Greek or Latin (the language taken in the First Year).
French or German (the language taken in the First Year).
Chemistry (Arts).
Biology (Medicine).

Third Year.

English Composition.
Anatomy.
Political Science.
English Literature.
Additional Subject (optional).
Organic Chemistry Lab.

entirely in the Faculty of Arts, and the second three altogether in the Faculty of Applied Science. The subjects which they are required to take each year in the Faculty of Arts is as follows:—

First Year.

The curriculum as laid down for the B.A. Degree in this year, except that a modern language *must* be taken. It is recommended that Advanced Mathematics be taken instead of the ordinary course in this subject.

Second Year.

1. **English Composition.**
2. **Latin.**
3. **Mathematics (Dynamics, Statics, Hydrostatics and Spherical Trigometry).**
4. **French or German.**
5. **The modern language not selected under No. 4 (if studied in the First Year), *or* English *or* Economics and History.**

Third Year.

1. **English Composition.**
2. **Physics.**
3. Any two of the following :—
   English, Latin, French, German, Philosophy, History, Economics (if taken in the Second Year) Political Science.

ARTS AND MEDICINE.

Students who wish to obtain the Degree of B.A. or B.Sc. (Arts) and M.D., in seven years will take three years in the Faculty of Arts and during the remaining four years will work altogether in the Faculty of Medicine. The courses which these students are required to take in the Faculty of Arts are shown on page 107a.

A certificate of "Literate in Arts" will be given along with the professional Degree in Medicine or Applied Science, to those who have completed two years' study in the Faculty of Arts, and have passed the prescribed examinations.

ARTS AND LAW.

1. Undergraduates who desire to qualify for the Degrees of B.A. and B.C.L. in six years shall include French among the subjects studied in each of the first two years of their course.

2. They shall take:—

I. *In the Third Year*:—

(*a*) French.
(*b*) Political Science.
(*c*) One other of the courses of the Arts curriculum, which shall be selected from those under the heading "Science" in every case in which the Second Year Course has not included either Chemistry or Biology.
(*d*) Either one or two hours weekly in English Composition.*

II. *In the Fourth Year*:—

(*a*) Economics.
(*b*) Constitutional Law and History.†
(*c*) Roman Law.
(*d*) One hour weekly in English Composition, if only one has been taken in the Third Year.*

3. In the case of students who propose to study Law, but are not subject to the statutory requirement of office attendance (see page 9) during the three years of their Law course, the Faculty may, on special application, in individual cases, make such arrangements as to permit of the completion of the double course in five years.

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* NOTE.—Students are recommended to distribute their English work over two Years.

† NOTE.—The half course in Constitutional History being given in alternate years only, students shall take it in their Third Year when it is offered in that year.

COURSES LEADING TO FORESTRY.

See page 166.

ARTS AND THEOLOGY.

1. The Faculty will make formal reports to the governing body of the Theological College which such students may attend as to:—(*a*) their conduct and attendance on the classes of the Faculty, (*b*) their standing in the several examinations; such reports to be furnished after the examinations, if called for.

2. Students who are pursuing a double course in Arts and Divinity (six years at least) will take in the Third and Fourth Years the courses which constitute the ordinary curriculum in Arts, less a half course in each of these years, or a whole course in either.

COURSES OF LECTURES IN ARTS.

DEPARTMENT OF CLASSICS.

PROFESSORS:—{ W. PETERSON, M.A., LL.D.
JOHN MACNAUGHTON, M.A.

ASSOCIATE PROFESSORS:—{ A. J. EATON, M.A., PH.D.
S. B. SLACK, M.A.

LECTURER:—ALEXANDER THOMPSON, M.A., PH.D.

SESSIONAL LECTURER AND TUTOR (Royal Victoria College):—ELIZABETH A. HAMMOND IRWIN, M.A.

TUTOR:—R. K. NAYLOR, B.A.

Greek.

All students taking Greek are expected to provide themselves with a grammar, a Greek-English dictionary, and an Atlas of ancient geography. The following are recommended:—

Allen's Elementary Greek Grammar; Liddell and Scott's Greek Lexicon (Abridged, or Intermediate); Kiepert's Atlas Antiquus, or Putzger's Historical Atlas.

BEGINNERS' COURSE.

1 Lectures, four hours a week.

Books required for 1909-10:—White's First Greek Book (Ginn & Co.); Macmillan's First Greek Reader, by Colson.

A tutorial class conducted during May and June enables students to overtake work not completed by the close of the winter session. Students intending to take Greek in their Second Year are required to take this class, or, if exempted by the Faculty, to take a supplemental examination in September.

ORDINARY COURSES.

First Year.

2. Lectures, four hours a week.

For 1909-10:—AUTHORS: Plato, Apologia (Adam, Pitt Press); Homer, Odyssey Books VI and VII (Merry, Clarendon Press); Euripides, Bacchae (Gwyther, Bell's Illustrated Classics).

COMPOSITION: North and Hillard's Greek Prose Composition (Rivingtons).

TRANSLATION AT SIGHT: Peacock and Bell, Passages for Greek Translation (Macmillan, Elementary Classics).

GREEK HISTORY: 560 to 479 B.C. Book recommended, Cox's Greeks and Persians (Longmans Epoch Series), or Bury's History of Greece (Macmillan), chs. V to VII.

Additional work may be prescribed for advanced students.

Second Year.

3. Lectures, four hours a week.

For 1909-10:—AUTHORS: *Summer Reading.*—Plato, Crito (Adam, Pitt Press). *Lectures.*—Thucydides, Book VII, (in part) (Marchant, Macmillan); Euripides, Iphigeneia in Tauris (England, Macmillan & Co.); Homer, Iliad XXIV (G. M. Edwards, Pitt Press).

COMPOSITION: North and Hillard's Greek Prose Composition (Rivingtons).

TRANSLATION AT SIGHT: Greek Unseens in Prose and Verse, Intermediate Section (Blackie & Son).

GREEK HISTORY: 479 to 403 B.C. Books recommended, Bury, History of Greece (Macmillan), chs. VIII to XI; Abbott, Pericles and the Golden Age of Athens (Putnam).

Advanced students will take the work of the ordinary course, together with additional work to be prescribed.

Third and Fourth Years.

4. Lectures, four hours a week.

For 1909-10:—AUTHORS: *Summer Reading.*—Greek History from 404-323 B.C. *Lectures.*—Plato, Purves' Selections (Clarendon Press); Sophocles, Oedipus Rex (Jebb, smaller edition); Aristophanes' Frogs (Merry). The lectures will include a course of twenty-four hours on the history of Greek thought or literature.

COMPOSITION: Passages to be selected.

TRANSLATION AT SIGHT: Fowler, Sportella (Longmans).

HONOUR COURSES.

Third and Fourth Years.

5. Honour students of the Third and Fourth Years will take the work of the ordinary course together with additional work, and will attend the ordinary lectures (except those from which they may be exempted under the regulation on page 97), together with four hours a week of additional lectures. They are recommended to study during the Summer Vacation the books set down under the head of Private Readings.

Additional Work for Honours (1909-10):—AUTHORS: *Private Readings* (Third and Fourth Years).—Aeschines, Contra Ctesiphontem (Ginn and Co.); Homer, Odyssey Books XIII-XV (Merry, XIII-XVIII, Clarendon Press); (Fourth Year only).—Æschylus, Septem contra Thebas (Sidgwick, Clarendon Press). *Lectures.*—Thucydides, Book IV (Graves, Macmillan & Co.); Aristophanes, Clouds (Merry, Clarendon

Press); Demosthenes, De Corona (Goodwin, Cambridge University Press).

COMPARATIVE PHILOLOGY: 48 lectures (see p. 116), which will be reckoned as forming part of the Third and Fourth Year Honours Course in Greek and Latin together. Book recommended, Edmonds, Introduction to Comparative Philology for Classical Students (Cambridge University Press).

COMPOSITION: Passages to be selected.

TRANSLATION AT SIGHT: Fox and Bromley, Models and Exercises in Unseen Translation (Clarendon Press).

(*For Honour Courses in Classics, see also page 98.*)

BRITISH SCHOOL OF CLASSICAL STUDIES IN ATHENS.

McGill University is a contributor to the support of this School, which affords facilities for archæological and classical investigation in Greece. Graduates in Arts of McGill University are accordingly entitled to special privileges and advantages as regards tuition in the School.

Latin.

ORDINARY COURSES.

All students taking Latin are expected to provide themselves with a grammar, a Latin-English dictionary, and an Atlas of Ancient Geography. The following are recommended: — Allen and Greenough's New Latin Grammar; Lewis' School Dictionary, *or* White's Junior Students' Latin-English Dictionary; Kiepert's Atlas Antiquus, *or* Putzger's Historical Atlas.

First Year.

1. Lectures, four hours a week.

For 1909-10:—AUTHORS:—Sallust, Catiline (Summers, Pitt Press); Cicero, de Amicitia (Massé, Bell's Illustrated Classics); Tibullus, Selections (Dobson, Arnold's Latin Texts).

COMPOSITION: Mitchell, Introduction to Latin Prose Composition (Macmillan, Toronto).

TRANSLATION AT SIGHT: Hardy's Latin Reader (Macmillan).

ROMAN HISTORY: Outlines, to 133 B.C. Book recommended, Botsford, History of Rome (Macmillan), chs. I to VI.

Advanced Section. Tacitus, Agricola (Pearce, Bell's Illustrated Classics).

Second Year.

2. Lectures, four hours a week.

For 1909-10:—AUTHORS: *Summer Reading.*—Virgil, Bucolica (Sidgwick, Pitt Press), omitting II and III. *Lectures.*—Livy, Book XXI (Trayes, Bell's Illustrated Classics); Horace, Selected Odes (Wickham, Clarendon Press); Virgil, Aeneid VI (Sidgwick, Pitt Press).

COMPOSITION: North and Hillard's Latin Prose Composition (Rivingtons).

TRANSLATION AT SIGHT: Hardy's Latin Reader (Macmillan).

ROMAN HISTORY: Outlines, from 133 B.C. to 337 A.D. Book recommended, Botsford, History of Rome (Macmillan), chs. VII to XII.

Advanced Section. As in First Year.

Third and Fourth Years.

3. Lectures, four hours a week.

For 1909-10:—*Summer Reading.*—Bury's History of the Roman Empire to the death of Marcus Aurelius.

AUTHORS: *Lectures*—Cicero, Tusculan Disputations, Books I and II (Allyn and Bacon); Horace, Epistles, Book I 8-end, and Book II, (Wilkins, Macmillan and Co.); Plautus, Captivi (Morris, Ginn & Co.).

A course of twelve lectures on the Roman literature of the Empire.

A course of twelve lectures on the Private Life of the Romans.

COMPOSITION: Selected Passages.

TRANSLATION AT SIGHT: Rivingtons' Class Books of Latin Unseens (ed. Smith), Book XII.

HONOUR COURSES.

Third and Fourth Years.

4. Honour Students of the Third and Fourth Years will take the work of the ordinary course together with additional work, and will attend the ordinary lectures (except those from which they may be exempted under the regulation on p. 97). together with four hours a week of additional lectures. They are recommended to study during the summer vacation the books set down under the head of Private Readings.

Additional work for Honours (1909-10): AUTHORS (Third and Fourth Years):—*Private Readings.*—(Third and Fourth Years)—Cicero, Pro Cluentio (Peterson, Macmillan); Lucretius, Book III, Duff (Pitt Press); (Fourth Year only).—Virgil, Aeneid II, X-XII (Sidgwick, Cambridge University Press, Cambridge Series for Schools and Training Colleges).

Lectures: Plautus, Trinummus (Morris, Ginn & Co.); Terence, Andria (Sloman, Clarendon Press); Cicero, Pro Plancio (Holden, Pitt Press); Fragments of Roman Satire (Merrill, Ginn & Co.); Selected Readings from Horace, Persius and Juvenal.

COMPARATIVE PHILOLOGY: 48 lectures (see page 116) which will be reckoned as forming part of the Third and Fourth Year Honour Course in Latin and Greek together. Book recommended, Edmonds (Pitt Press).

COMPOSITION: Nixon's Prose Extracts.

TRANSLATION AT SIGHT: Fox and Bromley, Models and Exercises in Unseen Translation (Clarendon Press).

(*For Honour Courses in Classics, see also page* 98.)

British School of Classical Studies at Rome.

McGill University is a contributor to the support of this School, which affords facilities for archæological and classical investigation at Rome. Graduates in Arts of McGill University are accordingly entitled to special advantages as regards tuition in the School.

Sanskrit.

The two courses in Sanskrit are primarily intended for students who have passed the Second Year sessional examination, but permission may in certain other cases be obtained to attend the elementary course.

1. A. For beginners, the work mainly consisting in the mastering of the elements of Sanskrit Grammar with such composition as tends to fix in the mind the knowledge thus acquired. Etymological references will be frequently made and comparisons suggested in order at once to familiarize the language and give it an educational value in spite of the elementary nature of the course. This course counts as a half-course qualifying for the Degree, and it is especially recommended to students attending the half-course in Comparative Philology.

Two hours a week.

1. B. For those students who have already passed through Course A or its equivalent in Sanskrit preparation. One hour per week is devoted to lectures on Indian Literature, commencing with the Post Vedic Period; two hours are devoted to reading selections; and one hour to grammar and composition, bearing especially on the texts read. Course B counts as one full course to the Final; courses A and B together, one and one-half, the student taking up Course B not being debarred thereby from repeating a course in another Department.

Four hours a week.

Books required:—Perry, Sanskrit Primer; Whitney's Sanskrit Grammar; Lanman's Sanskrit Reader (Ginn & Co.). For reference: Sanskrit Literature, A. A. Macdonell (Heinemann).

Summer Readings.—A course of summer readings will be suggested according to individual needs. During the months of May and June the lecturer will be glad to give his personal supervision to students of Sanskrit and is prepared to give lectures if due notice is given.

Comparative Philology.

LECTURER:—S. B. SLACK, M.A.

A. The first part of the course on Comparative Philology will deal with the following subjects: the history of the Science of Comparative Philology; the Indo-Germanic languages and their classification and relation to one another; the primitive home and culture of the so-called Aryan people; the nature of compounds in Indo-Germanic; recent theories about Ablaut and its relation to the Indo-Germanic system of accentuation; the importance of Ablaut in explaining apparent irregularities of declension and conjugation; external Sandhi in the Indo-Germanic languages; and the influence of analogy and contamination in the formation of words. The lectures will then go on to discuss the various sounds of the primitive Indo-Germanic language, and the development of those sounds in the various languages of the Indo-Germanic family.

B. After Christmas, special attention will be devoted to the Comparative Grammar of Greek and Latin. This part of the course will be especially useful to Classical Honour students. At the same time students who desire to make a special study of Comparative Philology are recommended to take this course in addition to course A mentioned above.

Two hours a week.

DEPARTMENT OF ENGLISH.

PROFESSOR:—CHAS. E. MOYSE, B.A., LL.D.
PROFESSOR OF COMPARATIVE LITERATURE AND ASSOCIATE PROFESSOR OF ENGLISH:—P. T. LAFLEUR, M.A.
TUTOR AND LECTURER:—SUSAN E. CAMERON, M.A., *Vice-Warden of the Royal Victoria College.*
LECTURER:—G. W. LATHAM, B.A.

ORDINARY COURSES.

First Year.

1. A. ENGLISH COMPOSITION. — The course will be of a practical character. Regular essays are required of all students. One hour a week.

1. B. ENGLISH LITERATURE.—The course will consist of a study of representative English writers. One hour a week.

1. C. HISTORY.—For course, see under History, page 144.

For affiliated colleges, in place of the above:—Halleck's History of English Literature (American Book Co.), pp. 1-261, with the following readings:—Chaucer, Prologue to the Canterbury Tales; Spenser, Faerie Queene, Book I; Milton, Comus; European History (Adams, Macmillan), pp. 53-451. Regular practice and instruction in composition are strongly recommended.

Second Year.

2. A. LITERATURE.—English Prose from Bacon to Burke. Three hours a week before Christmas, with the following special readings:—Bacon: Essays of Truth, of Unity in Religion, of Revenge, of Atheism, of Travel, of Friendship, of Plantations, of Building, of Studies; Browne: Religio Medici; Milton: Areopagitica; Defoe: A Journal of the Plague Year; Swift: A Tale of a Tub; Steele and Addison: The Tatler and the Spectator, *passim;* Goldsmith: The Citizen of the World. Craik's Prose Specimen and Chambers's Cyclopedia of English Literature (new ed.) may also be used.

English Prose in the Nineteenth Century. Three hours a week after Christmas. The course is a continuation of that followed in the first term and will include representa-

tive prose writers from Jeffrey to Leslie Stephen. Readings will be prescribed from the essays of Lamb, DeQuincey, Carlyle, Ruskin, Froude, Arnold and others. Prof. Lafleur and Miss Cameron.

2. B. COMPOSITION.—Continuation of 1 A.

Fortnightly essays will be required and will be taken into account in determining the standing of students at the end of the session. One hour per week.

This course is obligatory on all Second Year students.

For affiliated colleges: — Halleck's History of English Literature, pp. 305-480, and Nineteenth Century Literature (Cunliffe and Cameron, Copp, Clark Co.). Continued work in composition is strongly recommended.

Third Year.

3. A. ENGLISH LITERATURE.—Shakspere.—This course will begin with a review of the early history of the English drama, and of the conditions which led to its development in the time of Elizabeth. The advances made by the earlier Elizabethan dramatists will be noted, and Shakspere's methods illustrated by a comparative study of A Midsummer Night's Dream, Romeo and Juliet, Henry V, As You Like It, Hamlet, King Lear, Macbeth, and The Tempest; the relation of these plays to their sources will also be considered. Students are recommended to read as many of Shakspere's plays as they can, and to give special attention to those mentioned above. Books of reference will be named from time to time. Two hours a week. Dr. Moyse.

[The editions of separate plays published by Dent (Temple Shakespeare) or Macmillan will be found convenient.]

3. B. A course on Poetry and the Drama. England from 1660 to 1789, with special and detailed reference to changes in literary ideals and expression during the period discussed. The lectures will include poets, from Dryden to Crabbe; dramatists, from the writers of Heroic plays to Sheridan. Students will be called upon to pay special at-

tention to the following works: Dryden, Absalom and Achitophel; Pope, Selections from the Essay on Man, and The Rape of the Lock; Thomson, The Seasons (one book); Cowper, The Task (one book); Crabbe, The Borough (four divisions); Dryden, Essay on Dramatic Poesy; Addison, Cato; Goldsmith, She Stoops to Conquer; Sheridan, The School for Scandal. Two hours a week. Prof. Lafleur.

3. C. ENGLISH COMPOSITION. — An advanced course on English Composition, including style, methods and principles of literary criticism, treated from the historical point of view, and an introduction to the comparative study of literature in accordance with the most recent results of contemporary thought and research. In connection with this course students will be examined in a course of prescribed readings. Essays at stated periods are required of all. One hour a week. Prof. Lafleur and Mr. Latham. Third Year.

Prof. Lafleur's course in Composition is open only to students who take his course in Literature.

Books of reference and authorities:—Saintsbury's History of Criticism; Lessing, Sainte-Beuve, Brunetière, Arnold, Ruskin, Worsfold. One hour a week. Prof. Lafleur.

Fourth Year.

4. A. ENGLISH LITERATURE. — A Course on the Leading Poets of the Nineteenth Century. The chief aspects of the French Revolution will be considered, and Republican feeling in England illustrated chiefly from the works of Wordsworth, Coleridge and Southey. The indirect revolutionary poets Byron and Shelley will then be considered, and their typical poems, together with those of the poets already mentioned, critically examined. The remainder of the course will be given to Scott, Keats [Macmillan], Tennyson [Macmillan], Browning, Matthew Arnold and Swinburne. Two hours a week.

The poems which have been selected for private reading will be announced at the commencement of the session. Dr. Moyse, Prof. Lafleur and Miss Cameron.

4. B. A general course on the history of English Prose Fiction from Richardson to the middle of the nineteenth century, treating of the various forms successively given to English novels during the period, and the influences that stimulated or otherwise affected such productions. While students are expected to show particular knowledge of English master-pieces in this kind, frequent reference to cognate works by continental writers will also demand some familiarity with contemporary European literature. Portions of the following works will be selected for detailed study and discussion: Richardson, Clarissa; Fielding, Amelia; Goldsmith, The Vicar of Wakefield; Godwin, Caleb Williams; Walpole, The Castle of Otranto; Thackeray, Henry Esmond. *Books of reference*: — Raleigh, The English Novel; Dunlop, History of Fiction; Cross, The Development of the English Novel. Two hours a week. Prof. Lafleur.

4. C. ENGLISH COMPOSITION.—The statement respecting 3 C (page 119) indicates the method and character of this course, which is regarded as a continuation of the course in the Third Year. One hour a week.

HONOUR COURSES.

Third Year.

In addition to the ordinary work of the Third Year, Honour students will take course 5, together with courses 9, 10, 11, and 12.

5. ENGLISH LANGUAGE. Three hours a week. Sweet, Anglo-Saxon Reader, Extracts (all the Prose) XX, XXI, XXIII, XXVII; Wright, Primer of the Gothic Language, The Gospel of St. Mark (Clarendon Press); Wright, Old English Grammar (Oxford University Press). (The use of Braune, Gotische Grammatik is recommended). Dr. Moyse.

Fourth Year.

Honour students in the Fourth Year will select Language or Literature.

Language Students will take the following special courses in addition to 4A, 4B, and 4C:—

6. ANGLO-SAXON.—The whole of Béowulf will be read in class and illustrated by notes on origins, philology and textual emendations. *Text-Book*: Harrison and Sharp's Béowulf (Ginn). Students will read selected portions of other poems for examination. Anglo-Saxon prose will be studied mainly in the translation of Gregory's Pastoral Care and Ælfric's Homilies. Students will be guided in the examination of dialectal texts and referred to important articles in periodical literature dealing with that subject and also with the field of Anglo-Saxon generally.

Two hours per week. Dr. Moyse.

7. MIDDLE ENGLISH. — The course is intended to give a knowledge of dialectical English and to illustrate the changes the language has undergone. The texts given in Morris's Specimens of Early English, Part I, and Morris and Skeat's Specimens of Early English, Part II, may be regarded as the chief material for study. A list of books of reference and of important monographs will be given at the commencement of the course. Two hours a week. Dr. Moyse.

8. MŒSO-GOTHIC.—The course on Mœso-Gothic is intended to open the way to the comparative study of allied Teutonic languages. Particular attention will be given to the phonological relations of Mœso-Gothic and Anglo-Saxon. *Text-Books*: Wright, Primer of the Gothic language, The Gospel of St. Mark; Ulfilas (Heyne). Dr. Moyse.

Honour Students selecting Literature will take the following, in addition to the ordinary work of the Fourth Year, and one hour a week in Language (Anglo-Saxon):—

Sweet, Anglo-Saxon Reader, Extracts (all the verse). Dr. Moyse.

9. CHAUCER. — A sketch of Chaucer's characteristics and literary influence. The following works are chosen for special study:—Canterbury Tales: Prologue, Knightes Tale, Nonne Prestes Tale; Parlement of Foules; Hous of Fame [Skeat's Chaucer]; Piers the Plowman (Clarendon Press). Works to be consulted or read: Pollard's Chaucer Primer (Macmillan); Lounsbury, Studies in Chaucer; Jusserand's English Wayfaring Life; Snell, The Fourteenth Century. One hour a week.

10. PROSE WRITERS BEFORE DRYDEN (1910-11).—The main object of the course will be to discuss the chief literary influences visible in the Pre-Restoration writers of English prose and to examine characteristics of style. The subject will be treated chronologically. As the course is largely interpretative and critical, facts of biography will be used only when they illustrate points of moment.

Students will read the following works for examination: More, Utopia (Arber's reprint, or Temple Edition); Sidney, Apologie for Poetry (Ed. Cook, Ginn & Co. or Shuckburgh, Cambridge University Press); Lodge, Rosalynd (Newnes, Caxton Series); Bacon, New Atlantis; Earle, Microcosmographie (Temple Ed.); Milton, Areopagitica (Ed. Hales, Clarendon Press).

Two hours a week. Miss Cameron.

11. SPENSER AND MILTON (1910-11).—This course is intended to show the literary relations of Spenser and Milton to their time, and to treat with special prominence the following works:—Spenser: The Shepheard's Calendar, Mother Hubberd's Tale, Colin Clout's Come Home Again, Faerie Queene (Selections), Fowre Hymnes. Milton: Shorter Poems, Paradise Lost (Selections), Samson Agonistes.

One hour a week. Miss Cameron.

12. COMPARATIVE LITERATURE.—A course of lectures on the influence of English literature upon the Continent of Europe, chiefly during the eighteenth and nineteenth centuries. The treatment discusses mainly the historical development of ideas, but examines also corresponding modifications regarding literary method and form.

Voltaire, Letters concerning the English Nation; Elton, The Augustan Age; Texte, Jean Jacques Rousseau and the Cosmopolitan Spirit in Literature (tr. Matthews); Brunetière, L'Evolution des Genres. Two hours a week. Prof. Lafleur.

13. COMPARATIVE METHODS IN LITERARY STUDY (1910-11). —A course of lectures setting forth the chief tendencies manifested in contemporary criticism, and here applied to the examination of important literary relations between the Continent of Europe and England through the works of Montaigne, Molière, Voltaire, LeSage, etc.; with ample reference to the literatures of Germany, Spain, and Italy, in corresponding manner. Two hours a week. Prof. Lafleur.

14. ENGLISH PROSE FROM DRYDEN TO BURKE.—Details and readings to be announced at the beginning of the session. Prof. Lafleur.

15. AMERICAN AND CANADIAN LITERATURE.—A historical and critical outline of English Literature in the New World. Two hours a week. Miss Cameron.

16. TENNYSON (Continuation) and MINOR POETS of the NINETEENTH CENTURY. One hour a week.

For examination: Maud and the Idylls of the King. Readings from minor poets will be announced at the beginning of the session. Dr. Moyse.

Any of the above Honour Courses may be taken as an ordinary course with the approval of the Faculty, provided that the time-table allows of such substitution.

For Honour Courses in English see also pages 98 and 99.

DEPARTMENT OF MODERN LANGUAGES.

PROFESSOR:—HERMANN WALTER, M.A., PH.D.
ASSOCIATE PROFESSOR:—LEIGH R. GREGOR, B.A., PH.D.
PROFESSOR EXTRAORDINARIUS OF FRENCH LANGUAGE AND LITERATURE:—
M. HENRI LEBEAU, PROFESSEUR AGRÉGÉ DE L'UNIVERSITÉ DE FRANCE.
ASSISTANT PROFESSOR:—J. L. MORIN, M.A.
LECTURER:—E. T. LAMBERT, B.A.
TUTOR IN GERMAN (ROYAL VICTORIA COLLEGE):—MAY IDLER, B.A.
TUTOR IN FRENCH (ROYAL VICTORIA COLLEGE:—MLLE. I. CARDON, B. ES L.

A.—French.

Owing to the position which this University occupies in the midst of a very large French-speaking population, there is a permanent demand for courses of a practical, conversational character; for the same reason the Department profits by the co-operation of French church services, French family life, French newspapers, French theatres, French literary clubs, and public lecture courses in the French language.

In drawing up the following courses endeavours have been made not only to provide for the maintenance of academic methods, but also to meet the special needs of the professional men of the Province of Quebec, every student being given the opportunity to learn to speak French. In the First and Second Years the French language is largely used in class instruction. In the Third and Fourth Years all lectures are given and all studies carried on in French.

Honours may be taken in French and German together or in Latin and French or in Latin and German, as well as in English and French or in English and German. See pages 98 and 99.

ORDINARY COURSES.

First Year.

1. Vreeland & Koren, French Syntax and Composition (Holt); Sandeau, Mlle. de la Seiglière (Holt); Chateaubriand, Les Aventures du dernier Abencérage (Holt).

2. Daudet, Tartarin (A. B. Co.); Dumas, Napoléon (Macmillan), including passages for translation into French; Pail-

leron, Le monde où l'on s'ennuie (Jenkirs); Milhau, Choix de Poésies (Renouf); Super. Histoire de France (Holt).

Advanced Section (in place of course 2): Lemaître, Contes extraits de Myrrha (Heath); Musset, Selections (Ginn); Pailleron, Le monde où l'on s'ennuie (Jenkins); Normand, Cours d'Histoire à l'usage des écoles Nornales et Primaires, deuxieme année (Colin); Milhau, Choix de Poésies (Renouf).

The examinations for the students of Affiliated Colleges will include the whole of courses 1 and 2. Equivalents for the oral work and the oral examination will be stated on application.

Four hours weekly, two for each course.

Second Year.

SUMMER READINGS for students entering on their Second Year:—Corneille, Cinna (Holt); Daudet, Le Petit Chose (Heath).

The examination on Summer Readings will be held in the first week of the session.

SESSIONAL LECTURES:—

3. Vreeland and Koren, French Syntax and Composition (Holt), Parts II and III and Idioms of Part I; Corneille, Le Cid (Holt); Bazin, Les Oberlé (Holt); Elementary Historical French Grammar.

Advanced Section (in place of Course 3): Montesquieu, Lettres Persanes, with exercises (Macmillan); Corneille, Le Cid (Holt); Renan, Souvenirs (Heath); Hugo, Hernani (Holt). Elementary Historical French Grammar.

4. Mansion, Esquisse de la Littérature Française (McDougall & Co., London); Molière, Femmes Savantes (Heath); A. France, Le Livre de mon Ami (Holt); Milhau, Choix de Poésies (Renouf).

The examination for the students of Affiliated Colleges will include the whole of Courses 3 and 4. Equivalents for the oral work and the oral examination vill be stated on application.

Four hours weekly, two for each course.

Third and Fourth Years.

The courses will consist mainly in the study of French Literature and Advanced Prose Composition.

SUMMER READINGS for students entering on the Third or Fourth Year:—Racine, Phèdre (Heath); Hugo, Quatre-vingt-treize (Ginn).

The examination on Summer Readings will be held in the first week of the session.

SESSIONAL LECTURES:—

5. For 1909-10:—Literature in the XVIIIth and XIXth Centuries. Lesage, Gil Blas (Heath and Co.); Marivaux, Le Jeu de l'Amour et du Hasard; Buffon, Discours sur le Style; Montesquieu, Grandeur et Décadence des Romains; Sedaine, Le Philosophe sans le savoir; J. J. Rousseau, Selections; Voltaire, Zaïre; Doumic, Histoire de la Littérature Française.

Victor Hugo, Ruy Blas; Musset, Selections (Ginn and Co.); Balzac, Eugénie Grandet; Rostand, Princesse Lointaine; Hugo, Légende des Siècles; Gautier, Poésies (Selections).

Prose Composition:—Spiers, Graduated Course of Translation into French Prose (Simpkin, Marshall and Co., London).

6. For 1910-11:—Literature up to the end of the XVIIth Century. Doumic, Histoire de la Littérature Française; Corneille, Polyeucte; Racine, Les Plaideurs; Iphigénie; Molière, Le Misanthrope; Boileau, Choix d'Epîtres et de Satires; La Bruyère, Selections; Madame de la Fayette, La Princesse de Clève; Doumic, Histoire de la Littérature Française.

Prose Composition:—Spiers, Graduated Course of Translation into French Prose (Simpkin, Marshall and Co., London).

N.B.—In order to be admitted to the Third Year French a student must understand French well enough to take lectures delivered in French.

Four hours weekly.

Honour Courses.

Third and Fourth Years.

In order to obtain Honours, candidates must be able to speak French fluently.

Mediæval Literature and Philology are taken up in alternate years.

7. Mediæval French Literature and Philology (1909-1910):—Students will use Schwan's Altfranzösische Grammatik (revised by Behrens), Darmesteter's Cours de Grammaire Historique, and Bartsch, Chrestomathie de l'Ancien Français.

8. History of Literature:—Le Romantisme.
Three hours weekly.

9. Composition. One hour weekly.

N.B.—Before entering on their Fourth Year Course, Honour Students are expected to have read the following:—Corneille, Le Cid, Horace, Cinna, Polyeucte; Racine,—Andromaque, Britannicus, Phèdre, Athalie; Molière,—Ecole des Femmes, Misanthrope, Tartuffe, Le Bourgeois Gentilhomme, Les Femmes Savantes; Boileau, — L'Art Poétique; except when any of these texts are part of the readings prescribed for the ordinary course in the Fourth Year.

(*For Honour Courses in Modern Languages, see also pages 98 and 99.*)

B.—German.

Ordinary Courses.

Beginners' Course.

1. The Joynes-Meissner German Grammar (Heath and Co.); Meissner, Aus deutschen Landen (Holt); Schiller, Maria Stuart (Holt and Co.).

A tutorial class conducted during May and June enables students to overtake work not completed by the close of the winter session. Students intending to take German

in their Second Year are required to take this class, or if exempted by the Faculty, to take a supplemental examination in September.

Four hours weekly.

Summer Reading (obligatory) for students of the Beginners' Class intending to take German in their Second Year:—Schiller, Die Piccolomini (Holt); Riehl, Die vierzehn Nothelfer (A. B. Co.).

First Year.

2. The Joynes-Meissner German Grammar (Heath and Co.); Horning, German Composition; Two German Tales (Holt); Freytag, Die Journalisten (Ginn); Schiller, Maria Stuart (Holt and Co.); German and French Poems (Holt and Co.).

Four hours weekly.

The examination for the students of Affiliated Colleges will, in addition to the above, include equivalents for the oral examination, which will be stated on application.

Second Year.

SUMMER READINGS for students entering on their Second Year:—Schiller, Die Piccolomini (Holt); Riehl, Die vierzehn Nothelfer (A. B. Co.).

The examination on Summer Readings will be held in the first week of the session.

3. SESSIONAL LECTURES.—The Joynes-Meissner German Grammar; Horning, German Composition; Schiller, Wilhelm Tell (Holt); Goethe, Hermann und Dorothea (Ginn); Freytag, Karl der Grosse (Holt); Keller, Bilder aus der Deutschen Literatur (American Book Co.), edition 1905.

Four hours weekly.

For students in the Advanced Course an additional hour will be provided for the purpose of further study.

The examination for the students of Affiliated Colleges will, in addition to the above, include equivalents for the oral examination, which will be stated on application.

Third and Fourth Years.

SUMMER READINGS for students entering on their Third or Fourth Year: — Grillparzer, Der Traum ein Leben (Heath); Stifter, Das Heidedorf (Am. Book Co.).

The examination on Summer Readings will be held in the first week of the Session.

4. (For 1909-10):—Lessing, Nathan (Am. Book Co.); Lessing, Dramaturgie (Selections); Goethe, Iphigenie (Pitt Press); Schiller, Wallenstein's Tod; Keller, Legenden (Holt and Co.).

PROSE COMPOSITION.—History of German Literature in the XIXth century.

Four hours weekly.

5. (For 1910-11): — Lessing, Emilia Galotti; Schiller, Jugenddramen; Goethe, Tasso; J. P. Richter, Selections (A. B. Co.); Grillparzer, Sapho (Ginn).

History of German Literature.

Prose Composition.

HONOUR COURSES.

Third and Fourth Years.

The German Language alone is used in class instruction, and in order to obtain Honours, candidates must be able to speak German fluently.

Mediæval Literature and Philology are taken up in alternate years.

6. 1909-10. HISTORY OF GERMAN LITERATURE:—

(a) Goethe.

(b) Goethe's Faust.

(c) Theory and Technique of the Drama.

Each course one hour weekly.

7. MEDIÆVAL LITERATURE AND PHILOLOGY.

For 1910-11:—A general outline of the development of the German Language and a special study of the Middle High German period, its language and literature.

The following books will be used:—Bachmann, Mittelhochdeutsches Lesebuch (Faesi and Beer, Zurich); F. Kaufmann, Deutsche Grammatik; Behaghel, Die Deutsche Sprache.

Three hours weekly.

8. COMPOSITION: — Perini, Extracts in English Prose (Hachette).

N.B.—Before entering on their Fourth Year course, Honour students are expected to have read the following:—Lessing, — Minna von Barnhelm or Nathan der Weise, Emilia Galotti; Schiller, — Wilhelm Tell, Maria Stuart, Jungfrau von Orleans, Wallenstein, Ballads; Gœthe,—Gœtz von Berlichingen, Egmont, Hermann und Dorothea, Faust I, Poems; except when any of these texts are part of the readings prescribed for the ordinary course in the Fourth Year.

(*For Honour Courses in Modern Languages, see also pages 98 and 99.*)

Italian.

LECTURER:—LEIGH R. GREGOR, B.A., PH.D.

For 1910-1911:—

Third or Fourth Year.

The following course, given in alternate years, is intended for beginners. Partial students who wish to join the class must give satisfactory evidence of their ability to keep up with the undergraduates.

Grandgent, Italian Grammar (Heath & Co.); Grandgent, Italian Composition (Heath & Co.); De Amicis, Selections from Il Cuore; Manzoni, Selections from I Promessi Sposi; selections from the Divina Commedia; Notes on some of the great names of Italian Literature.

Spanish.

LECTURER:—J. L. MORIN, M.A.

First Year.

Hill and Ford, Spanish Grammar (Heath); Matzke, Spanish Readings (Heath); Valera, El Pajero verde (Ginn); Moratin, El si de las ninas (Ginn); Galdos, Doña Perfecta (Ginn).

Four hours weekly.

DEPARTMENT OF ORIENTAL (SEMITIC) LANGUAGES AND LITERATURE.

LECTURER:—REV. C. A BRODIE BROCKWELL, B.A., (Oxon.), M.A. (Kings, N.S.).

SESSIONAL LECTURER ON RABBINICAL AND MEDIÆVAL JEWISH LANGUAGE AND LITERATURE:—REV. NATHAN GORDON, B.A. (CINCINNATI), B.D. AND B.H. (HEBREW UNION COLLEGE), M.A.

SESSIONAL LECTURER IN HEBREW:—REV. A. R. GORDON, D. LIT.

The courses in this Department are intended to provide undergraduates in the Faculty of Arts with an exact knowledge of a limited portion of Semitic literature and history, combined with a general perspective of the whole Semitic field, including some of the leading contributions of Eastern civilization to Western thought and culture; and also to enable those who have attained sufficient knowledge in the same to pursue in the graduate school in much fuller detail many of the more important and attractive problems connected with Semitic philology, ethics, history and civilization. While the Honour Courses have been constructed with due regard to the respective claims of philology, ethics, history and archæology for the purpose of providing a comprehensive, useful and attractive form of mental training, they have also been carefully adapted to meet the needs of various students, *e.g.* those who are especially interested in the Eastern sources of our own civilization; those who require a knowledge of Arabic, either as can-

didates for the Indian or Egyptian civil service or because they intend to engage in Eastern trade and commerce; as well as of theological students of all persuasions, whether destined to labour ultimately at home or in the Oriental field.

Since the real value of a training in the Semitic Department lies in the Honour work of the Third and Fourth years, students are recommended to bear this in mind while taking the Hebrew of the Second Year, which is primarily intended to serve as a preparation for more advanced studies.

For Honours, the student has a choice of one of four courses to which he is required to devote the whole of his time, *i.e.* either I, the combined Greek and Hebrew Course; or II, the Hebrew; or III, the Arabic; or IV, the Aramaic and Syriac. In No. II the Hebrew language, in No. III the Arabic language and in No. IV the Aramaic language (including Syriac) forms the main linguistic study. Each of these three full Honour Courses includes at least three subjects (1) an exact study of the principal language by which the course in question is designated; (2) a less detailed study of one additional language and (3) a general knowledge of the history and literature connected with the principal language. In addition to these three subjects a "fourth" or "additional subject" is strongly recommended for all those who seek first class Honours.

In each of the Honour Courses, II, III and IV, an elementary knowledge of Semitic comparative philology is also required.

Though the ordinary Hebrew course of the Second year is intended primarily as a preparation for Honour work, ordinary courses are also provided for the Third and the Fourth years, and students who have taken the Hebrew of the Second and the Third years can either continue the same language in the Fourth year or substitute, subject to the possibility of arranging the time tables satisfactorily, either Arabic or Aramaic and Syriac. Pointing in the different systems, sight translation and the writing of proses, grammar papers and essays form a marked feature of all the courses.

ORDINARY COURSES.

A. HEBREW TEXTS: — (1) Genesis I-XI; I Kings XVII-XXI; Psalms I-X.

(2) Genesis XLIX; Exodus XIV-XV; Deuteronomy V-X, XXXII, XXXIII; Judges IV and V; Jeremiah XXXI; and Proverbs I-IX.

(3) Ezra IV, 8; VI, 18 and VII, 12-26; Esther; The Mishna Tract; Pirke Abôth; and Selections from Rashi's Commentary on Genesis.

B. SEMITIC HISTORY (brief outlines of) with reference to recently discovered documents.

C. TEXTUAL AND LITERARY CRITICISM with special reference to the Biblical texts prescribed in A (1) and (2).

D. ARABIC:—The Arabic V.S. of Genesis I-XI; the Kur'an, Suras I, LXI, LXXI, and CXIV; and Socin's Arabic Grammar, pp. 35 to 47.

E. ARAMAIC AND SYRIAC: — The Aramaic portions of Daniel; Genesis I-IV and LXIX, and Exodus XV, and Deuteronomy XXXII-XXXIV and Judges V in the Chrestomathia Targumica by Adelbertus Merx; Gismondi's Linguæ Syriacæ Grammatica, pp. 7-18; Sermon on Mount (Mt. 5-7) in the Peshitta v. s. and the Syriac sentences in the N. T.

LECTURES.

SECOND YEAR:—A (1) and B.
THIRD YEAR:—A (2) and C.
FOURTH YEAR:—A (3) and C, *or* instead either D, or E.

HONOUR COURSES.

I. Hebrew and Greek.

[For Greek, see page 111.]

The Hebrew subjects prescribed are the same as those in 1 and 2 of the full Hebrew Honour Course (No. II, below), with the addition of the following texts:—Jonah, Job XIX, Isaiah XLII, 1-4, XLIX, 1-6, L, 4-9, LII, 13, LIII, 12.

II. Hebrew.

1. Hebrew Texts:—(*a*) Poetry:—Genesis XLIX; Exodus XV; Numbers XXI, XXIII, XXIV; Deuteronomy XXXII; Isaiah V, 1-7, XXXVIII, 9-21; Psalms I-X; Proverbs XXXI; Job XXXVIII-XLI.

(*b*) Prose:—Genesis I-XI; Exodus XIV, XX-XXI, XXXIV, 14-28; Deuteronomy V-VI, XVI; Judges IV; I King's XVII-XXI; Jeremiah X, 11, and XXXI; Ezekiel VIII; Obadiah; Ezra IV, 8 to VI, 18, and VII, 12-26; Esther, and Rashi's Commentary on Deuteronomy XXXII.

2. History:—The Prophets of Israel during the Assyrian Period.

3. Additional Language:—One only of the following:—

(1) *Arabic*:—The Arabic v. s. of Genesis I-XI; the Kuran, Suras I LIII, LVII, LXI, LXXI and CXIV; Muallakât, poem III; and pages 35 to 47 of Socin's Arabic Grammar and part of No. 30 in the Letters of Abu'Lala.

(2) *Aramaic*:—The ordinary course E with the addition of Jonah and II Samuel XXIII in Merx, and pages 18 to 25 in Gismondi.

(3) *Phœnician*, including Punic and Neo-Punic:—All the inscriptions in this language given in G. A. Cooke's North Semitic Inscriptions.

(4) *Ethiopic*:—Prætorius, pp. 31-45 and Du Chaine, pp. 228-244.

4. Special (optional) Subject:—One only of the following:—

(1) *Semitic Archæology*, including the history of the Hebrew alphabet from the earliest times up to 1100 A.D., a knowledge of the writing materials used, and all the inscriptions in Hebrew, Phœnician, Punic, Neo-Punic, Moabitish,

Egyptian, Aramaic, Nabatæan and Palmyrene in G. A. Cooke's North Semitic Inscriptions, as well as Babelon's Manual of Oriental Antiquities.

(2) *The history of the composition of the Mishna and Talmud.*

(3) *Hebrew Poetry and Oratory.*

(4) *The principles and scope of the Higher Criticism and of Biblical Criticism in General.*

(5) *History of Jewish Literature from A.D. 70 to 1500.*

(6) *The primitive social, legal and religious customs and institutions of the Northern Semites as well as the most obtrusive myths and folklore embodied in the Scriptures.*

(7) *Comparative Philology of the Semitic Languages with special reference to Hebrew.*

III. Arabic.

1. Arabic Texts: Kur'an Suras 1, 50-57, 61, 64, 71, 80-113; Muallakât, poems I, III, V; the letters of Abu-'Lala, Nos. 2, 30; and the three following in the Semitic Study Series, *i.e.*, Sahih'Al-Buhari, pp. 1-10; Annals of Tabari, pp. 1-10, and Prolegomena of Ibn Khaldûn, pp. 1-10.

2. History:—General history of the Caliphate, with special reference to the Caliphs Abû Bakr, Omar, Othmân, Aly, Mansûr and Mustaasim.

3. Additional Language:—One only of the following:—
   (1) *Hebrew* as in the Ordinary Course A (1) and (2).
   (2) *Aramaic* as in the Ordinary Course E.
   (3) *Phœnician* as in Hebrew Honour Course II.
   (4) *Ethiopic* as in Hebrew Honour Course II.

4. Special (optional) Subject:—One only of the following:—

   (1) *Semitic Archæology*:—Including the history of the South Semitic and classical Arabic alphabets in Isaac Taylor's "The Alphabet," Vol. I, Chaps. V and VI, Hommel's Südarabisches Chrestomathie, Lidz-

barski's Altnordarabisches I and II, and Südarabische Iuschriften, both in Ephemeris fur Semitische Epigraphik; and Babelon's Manual of Oriental Antiquities.

(2) *Arabian contributions to Western civilization and culture.*

(3) *Arabic Poetry.*

(4) *The Structure, contents and Ethics of the Kur'an.*

(5) *History of Arabic Literature in Huart's Arabic Literature and De Boer's Philosophy in Islam.*

(6) *The primitive myths, folklore, and social, legal and religious institutions, especially of the Southern Semites.*

(7) *Comparative Philology of the Semitic Languages with special reference to Arabic.*

IV. Aramaic.

1. Aramaic and Syriac Texts:—As in Ordinary Course E, and II Hebrew Honour Course 3, (2), with addition of Berachoth in Lederer's selections from the Babylonian Talmud; the Syriac Hymn of the Soul, and pp. 1-20 of the Julian Romance in the Semitic Study Series.

2. History:—The place of the Aramæans in history.

3. Additional Language:—One only of the following:—

(1) *Arabic*:—As in Ordinary Course D, with the addition of Suras 53, 57, and 71.

(2) *Hebrew*:—As in Ordinary Course A (2) and (3).

(3) *Phœnician*:—As in II Hebrew Honour Course.

(4) *Ethiopic*:—As in II Hebrew Honour Course.

4. Special (optional) Subject:—One only of the following:—

(1) *Semitic Archæology*:—Including the history of the Aramæan alphabets; all the most important Aramaic Inscription dockets and papyri Assyrian, Syrian, Arabian, Nabatæan, Palmyrene, Sinaitic, old Egyptian

and Assuan, and Babelon's Manual of Oriental Antiquities.

(2) *The history and significance of Syriac literature.*

(3) *The principles of Syriac poetry and oratory.*

(4) *The Structure, contents and ethics of the Talmud.*

(5) *The history of the genesis and development of the Neo-Hebrew language and literature.*

(6) *The literary influence of Aramaic upon Jewish and Early Christian Literature.*

(7) *Comparative Philology of the Semitic Languages with special reference to Aramaic.*

N.B.—*For Honour Courses in Semitic Languages, see also page* 100.

For Exhibitions and Prizes, see pages 50 and 52.

For the Neil Stewart Hebrew Prize, see page 55.

For Semitic Studies leading to the M.A. and Ph.D. degrees, see under "Graduate School."

DEPARTMENT OF PHILOSOPHY.

PROFESSOR:—W. CALDWELL, M.A., D.Sc.
ASSOCIATE PROFESSOR OF LOGIC AND METAPHYSICS:—
J. W. A. HICKSON, M.A., PH.D.
SESSIONAL LECTURER IN EXPERIMENTAL PSYCHOLOGY:—
WILLIAM D. TAIT, PH.D.

The courses in this Department are designed to meet the wants of students in the Faculty of Arts, of students in the profession schools, of partial students and of graduates.

In all the ordinary courses such topics as the subject of Scientific Method, the relation of Ethics to legal and social questions, the relations of Psychology and Philosophy to Education, etc., are definitely kept in view.

Attention is drawn to the fact that it is now possible for students (graduate and others) to specialise in Psychology as well as in Mental and Moral Philosophy.

Ordinary Courses.

Second Year.

1A. Psychology. Text-book:—James, Psychology, Briefer Course, pp. 1-279, omitting chs. 7, 14, 15.

This course will include a general account of sensation, with special illustration by reference to the sensations which are of pre-eminent importance for the purposes of practical life (sight, hearing, contact, movement). This will be followed by a general outline sketch of the functions of the central nervous system and particularly of the higher brain-centres, as the physiological correlates of mental activity. The nature of habit and its importance for mental life will next be studied, and will be followed by an examination of the leading features of the concrete stream of actual mental life and the principal constituents of the self. The course will conclude with a study of attention and association. Occasional essays will be prescribed. Three hours weekly, throughout the first term of the Session.

1B. Formal Logic.—In the second term a course in Formal Logic and Fallacies. Text-book: S. H. Mellone, Introductory Text-Book of Logic (*second edition*), chs. 1-3, 4 (§§ 1-4), 5-7 (omitting ch. 5, part IV), 10. The course will embrace an outline of the general formal principles of valid reasoning, with frequent illustrations of their application to actual discussion. This will be followed by more detailed examination of the types of fallacious reasoning most commonly perpetrated in literature and daily life. Fortnightly exercises will be set and will form an important feature of the course. Three hours weekly.

1C. A course of six lectures upon the nature of philosophy and its relation to the sciences, and its place as a university study.

Third or Fourth Year.

2A. Moral Philosophy.—In the first term a course on the outlines of Ethical Theory. The following topics — among

others—will be treated of by means of short sets of lectures, study-notes, private reading, exercises, discussion, etc.:—the phenomena of the moral life in the individual and in the race; the postulates of ethical science; the relations of Ethics to the sciences, to law, politics, education, etc.; theories of conscience and the moral standard; ancient and modern conceptions of Moral Philosophy; the ethics of idealism and the ethics of evolution; the theory of moral progress.

2B. In the second term a course on the problems of Social Philosophy and Applied Ethics.

Short sets of lectures will be given upon the following topics: Ethics and the sociological movement of recent years; biological and psychological theories of society and of social progress; the ethics of the social questions; the duties and the virtues; the unity of the moral life; moral pathology; moral training; the ethical problem of the present.

Some modern manual will be used for purposes of class-room discussion, but the student will constantly be referred to the literature of the subjects treated, and to sources of independent investigation.

The course will be varied from year to year according to the needs of the subject and those of the students.

Four hours per week.

For a continuation course, see either 5A, 5B, or 8 with 7 or 12.

3A. Experimental Psychology. Two lectures and two to four hours laboratory work each week. There will be collateral reading and a thesis.

This course is designed to give the student a working acquaintance with experimental methods in connection with the accredited results of modern psychology. The lectures will run parallel with the laboratory work. Throughout, the phenomena investigated will be considered in connection with the physical and physiological processes which determine them. The course will keep in view the main applications of experimental psychology to comparative psychology, the psychology of childhood, abnormal psychology and education.

3B. (Continued throughout the session).

4A. The Logic of Induction. The pre-suppositions and methods of natural science; the relation of the historical and moral to the natural sciences.

4B. Introduction to the Theory of Knowledge. Relation of the Theory of Knowledge to Logic, Metaphysics and Psychology. An analysis of the pre-suppositions of inference, and a discussion of typical modern views of the nature of knowledge and truth. The nature of judgment and the relation of thought and reality.

Preliminary Reading Recommended:—Mill, System of Logic, Books III and VI; Jevons, Principles of Science, chapters VII and X to XXX; Hobhouse, Theory of Knowledge, Part III.

Works of Reference:—Lotze, Logic; Sigwart, Logic; Venn, Empirical Logic, and Logic of Chance; Pearson, Grammar of Science; Couturat, Les Principes des Mathématiques.

Four hours a week throughout the Session. May be given in alternate years instead of course 5.

For continuation courses, see Nos. 10 and 13.

5A. History of Modern Philosophy.

First Term: From the Renaissance to Kant.

Four hours a week.

5B. Second Term:—From Kant to the Present Time.

Books of Reference:—Rand's Modern Classical Philosophers (selections), the texts of the *Open Court Pub. Co.*, the various histories of philosophy—Falckenberg, Weber, Höffding, etc.

Four hours a week.

Some of the above courses may occasionally be taken in connection with graduate work.

Advanced Courses.

Second Year.

6A. Introduction to Philosophy:—Extension or development of the work attempted in I.C.—Study of some easy pieces

of typical philosophical literature such as Descartes' Discourse on Method, Berkeley's Dialogues, or Plato's Phædo, along with lectures upon the same. Use may also be made of some one of the many introductions to philosophy that have recently appeared.

One hour a week throughout the session.

6B. An introduction to experimental Psychology. — This course is supplementary to 1A. Its object is to make the student acquainted with some simple psycho-physical experiments relating to the production of sensations, to reaction time, Weber's Law and other topics discussed in the lectures of the Second Year. Use will be made of Seashore's Elementary Lessons in Experimental Psychology.

One hour a week throughout the session.

The selection of this course is urgently recommended by the Department for all students contemplating either Honours in Philosophy or a general knowledge of philosophy in relation to modern thought.

Honour Courses.

Third and Fourth Years.

Honour students will take course 5A and 5B and in addition some of the following:—

7. A course in Greek Philosophy. Students are expected to make an independent study of the fragments of one of the early philosophers, and to write an essay embodying the results of their study.

Pre-Socratic Physicists in Ionia, Italy and Sicily. The Athenian Period, and the rise of systematic Logic, Ethics and Psychology: Socrates, Plato, Aristotle. General diffusion of Philosophy over ancient life as a rule of conduct: Stoicism, Epicureanism, Scepticism.

Books of Reference:—The various source-books such as Ritter and Preller, Fairbanks, Bakewell, Wallace, etc. Zeller's Outlines and History; Aristotle's Metaphysics, Book I; Taylor's Translation.

Two hours weekly.

8. The Philosophy of Kant.—Lectures, study notes, and discussions of the writings of Kant, with a study of Kant's influence upon philosophy. The various translations of Kant or of portions of Kant's writings (Watson's *Selections* e.g.) will be used, with use of the German text where possible. Two hours weekly throughout the session. May be taken with 7 or 10 or 11 or 12, to make a four-hour course.

9. Psychological Seminary.—The course will be conducted by means of discussions and essays and reports upon the basis of experimental or investigative work. The topics selected will depend upon the capacity and the special interests of students.

Two hours or more weekly.

10. Metaphysics:.—A course dealing with the fundamental problems of Theoretical Philosophy, such as: The Nature of Space and Time; the Cosmological Problem of Infinity; the Nature of Reality (including the Problem of Mind and Body); Realism and Idealism; Monism and Pluralism; Teleology. While no text-book is prescribed, students are expected to make a careful study of some one of the following works: Bradley, Appearance and Reality; Taylor, Elements of Metaphysics; Ward, Naturalism and Agnosticism; Riehl, Philosophischer Kriticismus, Part II, English translation; and to write an essay on some selected topic connected with the course.

Two hours weekly.

11. Problems of Comparative Psychology, including some chapters of Child Psychology. Students undertaking this course must have already taken Psychology 3A, 3B, or show that they have done its equivalent. Two hours weekly.

Books of Reference: — Hobhouse, Mind in Evolution; Lloyd Morgan, Comparative Psychology, Animal Behaviour, Habit and Instinct; Preyer, Die Seele des Kindes; Baldwin, Mental Development in Child and Race.

12. Advanced Moral Philosophy.—Designed to meet the wants of students who have taken course 2, or who are otherwise competent to undertake the study of the more important works (Classical or Modern) upon the theory of morals, or to pursue the study of special questions in Ethics and Social Philosophy.

As a rule a careful study will be undertaken of the following works:—Aristotle's Ethics, Green's Prolegomena to Ethics, Sidgwick's Methods of Ethics, along with prescribed portions of writers like Spencer, Stephen, Martineau, and others. Special topics, however, (both in Theoretical and Applied Ethics) will also be prescribed for investigation and discussion, and the course will be varied from year to year to suit the needs and the capacities of students. It may occasionally be applied to suit the needs of advanced students in other departments, such as Classical or Modern Literature, Political Economy, Biology, History. Two or more hours weekly throughout the session.

13. Seminary in Philosophy.—Independent and detailed study of such questions in philosophical science as may, from time to time, seem to require specialised treatment. Such topics as the following may be considered:

Greek thought from Epicurus to Proclus; Systematic thinkers of the Seventeenth Century; the English Utilitarians; some Cosmological Problems of the present time; the Philosophy of Evolution; Modern Symbolic Logic; Philosophy in Europe and America during the last fifty years. Two hours or more weekly.

Graduate study and Seminary Work may be undertaken in connection with any of the more advanced of the above courses, *e.g.* Nos. 7, 8, 9, 10, 11, 12, 13. All such work, however, will as a rule depend upon the previous training of the student, and upon his capacity for original research under the personal guidance of members of the Department.

Fourth year students are expected to present an essay or thesis to be approved by the Department.

(*For Honour Courses in Philosophy see also page* 100.)

DEPARTMENT OF HISTORY.

PROFESSOR:—CHARLES W. COLBY, M.A., PH.D.
ASSOCIATE PROFESSOR:———————
ASSISTANT PROFESSOR:—CHARLES E. FRYER, M.A., PH.D.
TUTOR:—ETHEL HURLBATT, M.A., T.C.D., *Warden of the Royal Victoria College.*

ORDINARY COURSES.

First Year.

1. Great Men and Great Movements.

In this course no attempt will be made to present an epitome of fact. The aim of the lectures is rather to stimulate the beginner's interest in historical reading through an appeal to biography and the chief episodes in the progress of European thought. The sessional examination will be based on the following texts:—

Butcher, "What We Owe to Greece"; Thucydides, The Funeral Speech of Pericles, Book II, sections 35-46, Jowett's translation; Plutarch, Life of Timoleon, Clough's translation; Mommsen, Character Sketch of Julius Cæsar, History of Rome; Matthew Arnold, Essay on Marcus Aurelius; Freeman, Ancient Greece and Mediæval Italy; Einhard, Life of Charlemagne, Glaister's translation; Macaulay's Essays on "Ranke's History of the Popes," and "Clive"; Macaulay's State of England in 1685, History of England, chapter III; Parkman, The Heroes of the Long Sault; Stevenson's Essay on the English Admirals.

The results of the examination will be counted under the head of English, and at intervals students will be required to present short essays on historical subjects. A few illustrated lectures may also be given if suitable hours can be found.

One hour a week.

Second Year.

2. England in the Eighteenth Century.

A survey of political development, social conditions and colonial expansion between 1688 and 1784. Readings will be assigned and tested by short papers in the class-room.

Two hours a week.

Third or Fourth Year.

3. The History of Europe from the accession of Augustus to the death of Luther, B.C. 27—A.D. 1546.

In this course special attention will be given to institutions and movements. Topics for investigation will be assigned, and students will write at least one thesis during the year. Readings to accompany each lecture are assigned in the syllabus for the course.

Four hours a week.

HONOUR COURSES.

Third and Fourth Years.

4. The Renascence. Two hours a week. (Omitted in 1909-1910).

5. The Early Reformation. Two hours a week.

6. The Catholic Revival and the Thirty Years' War. Two hours a week. (Omitted in 1908-1909.)

7. The History of England since 1784. Four hours a week.

8. The Political and Constitutional History of Europe since 1789. Four hours a week. (Omitted in 1909-1910).

9. Canada, Government and Public Policy. Four hours a week for the first term.

10. English Constitutional History—1307. Two hours a week. (Omitted in 1909-1910).

11. History of Canada, 1810-1867. Two hours a week.

12. Topics in Recent History. A discussion of political questions and tendencies since the Franco-German war, with special reference to the partition of Africa, the Eastern question and the shaping of the Far East. The consolidation of the British Empire and the position of the United States as a world power will be touched upon. (Omitted in 1909-1910).

Texts:—Honour Students in History will be examined at the end of the Third Year on the following texts:—Herodotus, VI-VII, Macaulay's trans.; Thucydides, I, II, 1-65, VI, VII, Jowett's trans.; Plutarch, The Lives of Themistocles, Pericles, Pyrrhus, Caius Gracchus, Cato the Younger, and Julius Cæsar,

Clough's trans.; Polybius, Book VI-IX, Shuckburgh's trans.; Livy, Books XXI-XXII, Church and Brodribb's trans.; Tacitus, Annals, Book I, Germania, Vita Agricolæ, Church and Brodribb's trans.

Honour students in History will be examined at the end of the Fourth Year on the following texts:—Clarendon, History of the Rebellion, Book VII; Burnet, History of My Own Time, Book IV, from the beginning of 1689 to the end of the book; Gibbon, Decline and Fall, chapters I, II, III, XXIII, L, LVII, LVIII; Burke, Reflections on the French Revolution; Macaulay, History of England, chapters IV-IX; Captain Mahan, Influence of Sea Power on History; Buckle's History of Civilization, chapters I-II; Parkman, Montcalm and Wolfe; Lord Acton, Lectures on Modern History.

Summer Readings.—All students in History are expected to follow a course of summer readings as a preparation for the work of the ensuing session. Special programmes will be drafted with a view to individual needs.

(*For Honour Courses in History, see also page* 100.)

Commercial Course.

First and Second Years.

13. Canadian History. Two hours a week.
14. English History since 1756. Two hours a week.

DEPARTMENT OF ECONOMICS AND POLITICAL SCIENCE.

Professor:—Stephen B. Leacock, B.A., Ph.D.

Assistant Professor:—J. C. Hemmeon, M.A., PhD.

Ordinary Courses.

Second Year.

1. Elements of Political Economy.

Two hours per week throughout the session. Dr. Leacock.

Text-Book:—John Stuart Mill, Principles of Political Economy.

Third or Fourth Year.

2. PRINCIPLES OF ECONOMIC THEORY.
Four hours per week throughout the session. Dr. Hemmeon.
3. PRINCIPLES OF POLITICAL SCIENCE.
Four hours per week throughout the session. Dr. Leacock.

HONOUR AND CONTINUATION COURSES.

4. MONEY AND BANKING. (Omitted in 1909-10).
5. ECONOMIC HISTORY. (Omitted in 1909-10).
6. POLITICAL ECONOMY PRIOR TO THE NINETEENTH CENTURY.
Four hours per week during the first half of the session. Dr. Hemmeon.
7. POLITICAL ECONOMY IN THE NINETEENTH CENTURY.
Four hours per week during the last half of the session. Dr. Leacock.
8. CANADA: GOVERNMENT AND PUBLIC POLICY.
Four hours per week during the first half of the session. Dr. Leacock.
9. PUBLIC FINANCE.
Four hours per week during the last half of the session. Dr. Hemmeon.
10. TRANSPORTATION PROBLEMS.
Two hours per week throughout the session. Dr. Hemmeon.
11. SEMINARY.
One hour per week throughout the session. Dr. Leacock and Dr. Hemmeon.

Honour Students of the Third Year will take Courses 2, 3, 6, 7; together with Ordinary History or French or Philosophy of the Third Year.

Honour Students of the Fourth Year will take Courses 6, 7, 8, 9, 10; together with a half course in History, French, Philosophy or Roman Law as arranged in consultation with the Department.

Students of the Fourth Year who have taken the Third Year Ordinary Course in Political Economy may offer as a continuation, Course 3 or Courses 6 and 7.

Students of the Fourth Year who have taken the Third Year Ordinary Course in Political Science may offer as a continuation, Course 2 or Courses 8 and 9.

The work in the Seminary is arranged in accordance with the special needs of the session.

Four scholarships known as the Mackenzie Scholarships are awarded annually in the Department, two of the value of one hundred dollars and two of the value of fifty dollars. For regulations see page 51.

EDUCATION.

PROFESSOR:—J. A. DALE, M.A. (Oxon.)
MASTER OF METHOD:—E. M. CAMPBELL, B.A. (McGill).
DEAN OF THE SCHOOL FOR TEACHERS, MACDONALD COLLEGE:—
S. B. SINCLAIR, B.A., Ph.D.
SESSIONAL LECTURER IN EXPERIMENTAL PSYCHOLOGY:—
WILLIAM D. TAIT, Ph.D.

Third or Fourth Year.

1. History of Education.
   (a) Lectures.
   (b) Supplementary. Two hours a week.
2. Theory of Education.
   (a) Lectures.
   (b) Supplementary. Two hours a week.

The above course is required for the Academy Diploma of the Province of Quebec.

Additional courses will be offered as follows:—

3. Educational Psychology. Two hours a week.
4. Contemporary Education.
   (a) Modern Systems.
   (b) Current Literature. Two hours a week.

The full course consists of 1 and 3 in the Third Year, 2 and 4 in the Fourth Year.

For the Academy Diploma 50 half days of professional training in schools under the supervision of the Department is also required.

Elementary and Model Classes are trained at Macdonald College. For full particulars apply to the Dean of the School for Teachers, Macdonald College P.O., Que.

CONSTITUTIONAL LAW.

PROFESSOR:—F. P. WALTON, B.A., LL.B., LL.D. (DEAN OF THE FACULTY OF LAW).

The Constitutional Law of Canada will be treated in the following order:—1. Canadian Constitutional History prior to Confederation. 2. The British North America Act, and the leading cases under it which illustrate the respective powers of the Dominion and the Provinces. 3. The fundamentals of English Constitutional Government which form the basis of the Canadian Constitution. 4. The Cabinet System. 5. The difference between English and French practice as to responsibility of officials.

Two hours a week.

ROMAN LAW.

PROFESSOR:—F. P. WALTON, B.A., LL.B., LL.D. (DEAN OF THE FACULTY OF LAW).

A Course is offered in Roman Law, open to Third and Fourth Year students in Arts, and qualifying as an option for the B.A. Degree. For details, see under Faculty of Law, page 261.

DEPARTMENT OF MATHEMATICS.

PROFESSOR:—J. HARKNESS, M.A., F.R.S.C.
ASSOCIATE PROFESSOR:—A. S. EVE, M.A., D.Sc.
ASSISTANT PROFESSOR:—T. RIDLER DAVIES, B.A.
LECTURERS:—{ _____ _____

ORDINARY COURSES.

First Year.

1. PLANE AND SOLID GEOMETRY.—The equivalent of Books IV, VI and XI of Euclid, with supplementary matter from Hall and Stevens' Euclid.

Algebra. — Hall and Knight's Elementary Algebra (omitting chapters 40-42 inclusive), or the same subject matter in similar text books.
Trigonometry.—Hall and Knight's Elementary Trigonometry to page 210 and chapter 19.
Nature and use of logarithms. (Bottomley's four figure tables).

Four hours per week.

Second Year.

2. GEOMETRY.—(*a*) Solid Geometry, continuation of the First Year; (*b*) Geometrical Conic Sections, Wilson's Solid Geometry and Geometrical Conics.
Algebra.—Permutations and Combinations; Binomial Theorem; Exponential and Logarithmic Series; Undetermined Coefficients; Partial Fractions; Summation of typical series; Probabilities; Determinants; Graphic Methods.
Text-Book:—Hall and Knight's Higher Algebra.
Three hours per week.

Spherical Trigonometry.—A short course compulsory for students proceeding to the Faculty of Applied Science. Students taking the Advanced Course in Mathematics are recommended to take this course.

Third or Fourth Year.

3. ELEMENTARY ANALYTICAL GEOMETRY; elementary parts of the Differential and Integral Calculus; simple Differential Equations.
Four hours per week.

4. ASTRONOMY. — This course is intended to give a general account of the main facts of Astronomy, and the methods by which these facts are obtained. It may be taken by students who have attended the ordinary or advanced courses in mathematics of the first two years.
Two hours per week.

ADVANCED COURSES.

First Year.

5. MODERN PURE GEOMETRY.—Selections from Lachlan's book, or an equivalent text-book; Hall and Knight's Higher Algebra; Burnside and Panton's Theory of Equations (selected course); Trigonometry, as in ordinary course; Higher Trigonometry, Lock.

Second Year.

6. ANALYTICAL GEOMETRY.—Smith's Conic Sections.
DIFFERENTIAL AND INTEGRAL CALCULUS.—Lamb's Infinitesimal Calculus and Osgood's Calculus.
Four hours per week.
Students are recommended to take the special short course in Spherical Trigonometry.
7. DYNAMICS, STATICS AND HYDROSTATICS.—A course of two hours per week, for students who are proceeding (1) to the Faculty of Applied Science, or (2) to Third Year Honours in Arts.

HONOUR COURSES.

Third Year.

8. Selected topics in Differential and Integral Calculus.
9. Differential Equations.
10. Geometry of Three Dimensions.
11. Vector Analysis.

In addition students reading for Honours will be required to take course 6 and selected topics from course 5, under Physics, see page 155.

Fourth Year.

The courses given will be selected from the following:—
12. Introduction to the Theory of Functions.
13. Elliptic Functions.
14. Lectures in connection with Scott's Modern Analytic Geometry and the early chapters of Salmon's Higher Plane Curves.

15. Lectures on Modern Geometry, based on Reye's Geometry of Position.

In addition students reading for Honours will be required to take the seminary topics of course 5, under Physics, (see page 155.)

(*For Honour Courses in Mathematics, see also page* 101.)

DEPARTMENT OF PHYSICS.

PROFESSORS:—HOWARD T. BARNES, D.Sc., *Director.*

ASSISTANT PROFESSOR:—H. L. BRONSON, PH.D. (Yale).

LECTURER:—F. H. DAY, M.Sc.

LECTURER IN RADIO-ACTIVITY:—A. S. EVE, M.A., D.Sc.

DEMONSTRATORS:—A. N. SHAW, B.A., W. S. VIPOND, M.Sc., N. R. GILLIS, M.Sc., S. J. CROCKER, B.A., B.Sc.

ORDINARY COURSES.

First Year.

1. PHYSICS.—This course has two objects: (1) to give the minimum acquaintance with Physical Science requisite for a liberal education to those whose studies will be mainly literary; (2) to be introductory to the courses in Chemistry and other branches of Natural Science, and to the more detailed courses in Physics in the Third and Fourth Years. Only the most important principles in each branch of the subject will be treated, as far as possible, with reference to their historical development and mutual relations; and they will receive concrete illustration in the study of the principal instruments in daily use in the laboratory. Two illustrated lectures will be given per week. During the Session each student will be required to attend in the laboratory, and make measurements involving the use of the following instruments:—*Balance, Pendulum, Barometer, Thermometer, Sonometer,*

Telescope or Microscope, Tangent Galvanometer, Wheatstone's Bridge.

Outline of Syllabus. The scope and method of Science, primary phenomena ("states and properties of matter"), motion, velocity, acceleration, laws of motion, momentum, energy, work; the parallelogram law for velocities and forces, equilibrium and the simple machines; uniform circular motion, vibration, the pendulum; fluid pressure, the barometer, specific gravity; summary of *Mechanics,* indicating the principle of the conservation of energy.

The missing energy traced in:—

(1) *Sound*:—Nature of wave motion, intensity, pitch and quality of musical notes; the stretched string and organ pipe; resonance.

(2) *Heat*:—Temperature and the thermometer; the calorimeter, fusion and vaporisation; laws of Boyle and Gay-Lussac; the mechanical equivalent; application of conduction, convection and radiation to common problems of climate, ventilation, etc.

(3) *Light*: — Reflection, refraction, the spherical mirror, prism, lens, microscope, telescope, spectroscope, polariscope; principle of interference and sketch of the undulatory theory.

(4) *Electricity and Magnetism*: — The electrophorus, the modern induction machine, the condenser; the idea of potential; atmospheric electricity; magnetic field and lines of force; the compass and terrestrial magnetism; effects of current; the voltameter and storage cell; the galvanometer; heating effects; simple batteries; Ohm's Law; practical units and measurement of current, resistance, electromotive force; mutual mechanical effects of conductors and magnetic fields; principle of the electric motor; the electro-magnet; induction of currents, and principle of the dynamo; applications to telegraph, telephone, lighting, and supply of power.

Conclusion. — Restatement of principle of Conservation of Energy in complete form; dissipation of Energy.

Two hours a week. *Text-book*:—Mann and Twiss.

Third Year.

2. EXPERIMENTAL PHYSICS.—(*First Course.*)—Laws of energy, sound, light and heat. *Text-book*: — Watson, (Longmans).

Lectures fully illustrated. Two hours a week; with Laboratory Course, three hours a week.

Laboratory Manual.—Tory and Pitcher.

HEAT:—Construction and calibration of thermometers; melting and boiling points; air thermometer; expansion of solids, liquids and gases; calorimetry; specific and latent heats; laws of vapour pressure; radiation; the mechanical equivalent of heat.

SOUND.—Velocity of sound; determination of rates of vibration of tuning forks; resonance; laws of vibration of strings.

LIGHT. — Photometry; laws of reflection and refraction; indices of refraction; focal lengths and magnifying powers of mirrors, lenses, telescopes and microscopes; the sextant, spectroscope, spectrometer, diffraction grating, optical bench and polariscopes.

Fourth Year.

3. EXPERIMENTAL PHYSICS.—(*Second Course.*) — Electricity and Magnetism. *Text-book*:—Watson.

Lectures fully illustrated. Two hours a week; with Laboratory Course, three hours a week.

Laboratory Manual.—Tory and Pitcher.

Measurement of pole strength and moment of a magnet; the magnetic field; methods of deflection and oscillation; comparison of moments and determination of elements of earth's magnetism; frictional electricity; current electricity:—complete course of measurements of current strength, resistance and electromotive force; calibration of galvanometers; the electro-dynamometer; comparison of galvanometers; the electrometer; com-

parison of condensers; electromagnetic induction; discharge of electricity through gases; radio-activity; electrical waves.

N.B. — For Advanced Courses intended for Electrical Engineering students and graduates pursuing the study of Physics, see under Courses in Applied Science, page 245.

Third or Fourth Year.

4. Mechanics and Hydrostatics.—Two hours a week.

HONOUR COURSES.

Third and Fourth Years.

5. Analytical statics; dynamics of a particle; rigid dynamics; hydromechanics.
6. Advanced courses in heat, optics and electricity.

(*For Honour Courses in Mathematics and Physics, see also page* 101.)

DEPARTMENT OF CHEMISTRY,

PROFESSOR:—J. WALLACE WALKER, M.A., PH.D.
ASSOCIATE PROFESSORS:—NEVIL NORTON EVANS, M.A.Sc.; DOUGLAS MCINTOSH, M.A., D.Sc.
LECTURER:—F. M. JOHNSON, M.Sc. Ph.D.
DEMONSTRATORS:—A. F. ROBERTSON, M.Sc.; VERNON K. KRIEBLE, M.Sc.; ALBERT O. HAYES, B.Sc.
PROFESSOR OF ORGANIC AND BIOLOGICAL CHEMISTRY (Faculty of Medicine):—R. F. RUTTAN, B.A., M.D.

ORDINARY COURSES.

Second Year.

1. GENERAL CHEMISTRY.—A Course of lectures on Elementary Chemical Theory, and on the principal elements and their compounds. The lectures are fully illustrated by means of experiments.

Text-book: — Holleman's Text-book of Inorganic Chemistry (Translation by Cooper). *For Reference*:—Bloxam's Chemistry. Three hours a week.

ELEMENTARY PRACTICAL CHEMISTRY. — This course is compulsory for all undergraduates taking the above course of lectures. The work includes experiments illustrative of the laws of chemical combination, the preparation of pure chemical compounds, and elementary Qualitative Analysis. Four hours a week.

Third Year.

2. INORGANIC CHEMISTRY.—A course on Historical and Physical Chemistry. One hour a week.

3. ELEMENTARY ORGANIC CHEMISTRY.—An elementary course of lectures on Organic Chemistry open to students in Biology and compulsory for students intending to take the advanced course on Organic Chemistry in the Fourth Year.

Text-books:—Holleman's Text-book of Organic Chemistry; Remsen's Organic Chemistry. One hour a week.

4. ADVANCED PRACTICAL CHEMISTRY.—Laboratory practice in methods of gravimetric and volumetric analysis, during the first term, and preparation of simple organic substances in the second term.

Text-books:—Talbot's Quantitative Chemical Analysis and Holleman's Laboratory Manual of Organic Chemistry.

Six hours a week.

Fourth Year.

5. ORGANIC CHEMISTRY.—A systematic course of lectures on Organic Chemistry, including the analysis of organic substances, calculation of formulæ, determination of molecular weights, polymerism, isomerism, etc., followed by a discussion of the more important derivatives of the aliphatic and aromatic series of compounds. Two hours a week.

6. PRACTICAL ORGANIC CHEMISTRY.—A complete course on the preparation and analysis of organic substances, with determinations of molecular weights, etc.

7. PHYSICAL CHEMISTRY.—The lectures are a continuation of those given during the Third Year and include Thermo-Chemistry, the principles of Thermodynamics as applied to chemical action, osmotic phenomena and their application in deducing the ionisation theory of solutions, a study of such physical properties of gases, liquids and solids as are known to depend on their chemical constitution, the phase rule and Electro-Chemistry.

Two hours a week.

Books of Reference:—Ramsay's Text-Books of Physical Chemistry.

8. PRACTICAL PHYSICAL CHEMISTRY.—Laboratory work will include the various methods of determining the molecular weights of gases and of substances in solution, accurate measurement of densities, refractive indices, surface tensions and specific rotations; also examples of chemical statics and kinetics, and electro-chemical measurements.

9. MINERAL ANALYSIS.—A course of laboratory work comprising advanced quantitative analysis and investigation of the constitution of mineral species.

HONOUR COURSES.

Third Year.

Honour students in the Third Year will be required to take all the ordinary courses of that Year and in addition do extra reading and laboratory work.

Fourth Year.

Honour students in the Fourth Year will take courses 5, 6, 7 and 8 *or* 7, 8 and 9.

(*For complete Honour Courses in Chemistry, see page* 101.)

DEPARTMENT OF GEOLOGY AND MINERALOGY.

PROFESSOR:—FRANK D. ADAMS, D.Sc., PH.D., F.R.S.
LECTURERS:—J. AUSTEN BANCROFT, M.A.; RICHARD P. D. GRAHAM, B.A., M.Sc.
SESSIONAL LECTURERS:—ALFRED E. BARLOW, M.A., D.Sc.; JOHN A. DRESSER, M.A.

ORDINARY COURSES.

Second Year.

1. PHYSICAL AND COMMERCIAL GEOGRAPHY.—This course will be devoted to a study in outline of the physical features of the earth, and their influence upon commerce, especially upon the distribution and utilization of commercial commodities. In so far as practicable, a study will be made of the resources of the various countries of the world, and especially of the Dominion of Canada.

Two hours a week throughout the year.

N.B.—This forms part of the Commercial Course of the Second Year.

Third Year.

2. GENERAL GEOLOGY.—The lectures will embrace a general survey of the whole field of Geology, and will be introduced by a short course in Mineralogy. Especial attention will be devoted to Dynamical Geology and to Historical Geology, including a description of the fauna and flora of the earth during the successive periods of its past history.

The lectures will be illustrated by the extensive collections in the Peter Redpath Museum, as well as by models, maps, sections and lantern views. There will be an excursion every Saturday until the snow falls, after which the excursion will be replaced by a demonstration in the Museum.

Text-book:—Scott, An Introduction to Geology.

Books of Reference:—Dawson, Hand-Book of Geology; Dana, Manual of Geology.

Three hours a week throughout the year, with additional excursions and demonstrations as above stated.

Honour Courses.

Third Year.

In the Third Year, students pursuing the Honour Course will take General Geology, 2.

3. Mineralogy.—Lectures and demonstrations illustrated by models and specimens in the Peter Redpath Museum and the Macdonald Chemistry and Mining Building. Among the subjects discussed are:—crystallography; physical properties of minerals dependent upon light, electricity, state of aggregation, etc.; chemical composition, calculation of mineral formulæ, quantivalent ratios, etc.; principles of classification, description of species.

Two hours a week.

4. Determinative Mineralogy.—Laboratory practice in blow-pipe analysis and its application to the determination of mineral species. This work is carried on in the laboratory provided for the purpose in the Chemistry and Mining Building.

Wednesday and Thursday, 2 to 6 p.m. in second term.

Fourth Year.

5. Mineralogy (In continuation of No. 3).—Description of species, particular attention being paid to those which are important as rock constituents and to the economic minerals of Canada; measurement of the angles of crystals with the reflection goniometer; projection of crystal forms; calculation of axial ratios of crystals; drawing of crystal forms; use of the polarising microscope, axial angle apparatus, etc.

First term, two hours a week.

6. Petrography.—The modern methods of study employed in Petrography are first described, and the classification and description of rocks are then taken up.

One lecture a week during the first term. One afternoon a week throughout the year will be devoted to special microscopical work in the Petrographical Laboratory.

Text-book:—Harker, Petrology for Students.

Books of Reference: — Rosenbusch, Mikroskopische Physiographie, and Zirkel, Lehrbuch der Petrographie.

7. A. PALÆONTOLOGY.—An extension of the Palæontology of Course 2, with special studies of some of the more important groups of fossils.

One lecture a week during the second term and one demonstration a week, with special studies in the Peter Redpath Museum.

Books of Reference: — Nicholson and Lydekker, Manual of Palæontology; Zittel & Eastman, Text-Book of Palæontology.

or

7. B. PHYSIOGRAPHY.—A description of land forms with reference to their origin, classification, drainage, development, climatic and human controls.

The physical features of Canada will be described during the latter half of the course.

The course will consist of lectures, demonstrations, and laboratory work, and will be illustrated by maps, models, and lantern slides.

Two hours a week during the first term.

Books of Reference:—Davis, Physical Geography; Mill, The International Geography.

8. ORE DEPOSITS, AND ECONOMIC GEOLOGY.—The nature, mode of occurrence and classification of ore deposits will first be taken up. A series of typical occurrences will then be described and their origin discussed—the more important non-metallic materials—*e.g.*, fuels, clay, abrasive materials, building stones, etc., will be similarly treated, as well as questions of water supply, artesian wells, etc.

The course will be illustrated by maps, models, lantern slides and specimens.

Three lectures a week throughout the second term.

Text-books: — Geikie, Outlines of Field Geology; Kemp, Ore Deposits of the United States and Canada; Philips and Louis, A Treatise on Ore Deposits; Beck, Ore Deposits.

Books of Reference:—The Reports of the Geological Survey of Canada and the Monographs of the U. S. Geological Survey.

9. PRACTICAL GEOLOGY.—This course is a continuation of the general geology of the Third Year and commences with the consideration of the structural features of the earth's crust, resulting from sedmentation, folding, faulting, the various phases of igneous intrusion, etc., with special reference to engineering problems. A discussion of the methods employed in carrying out geological and magnetic surveys and in the construction of geological maps and sections, as well as the interpretation of these, is then taken up.

One lecture a week throughout the year.

10. CANADIAN GEOLOGY.—A general description of the geology and mineral resources of the Dominion.

One lecture a week during the first term.

Text-book:—Dawson, Hand-book of Geology.

Books of Reference:—The Reports of the Geological Survey of Canada.

11. GEOLOGICAL COLLOQUIUM.—A discussio each week of some geological topic, references to the literature of which have been given in the week preceding. The course is intended to give students some acquaintance with geological literature, as well as a wider knowledge of the great principles which underlie the Science.

One hour a week throughout the year.

12. GEOLOGICAL SURVEY.—Candidates for Honours in the Fourth Year will also undertake, under the direction of the Demonstrator in Geology, a geological survey of some suitable area selected for that purpose. This survey will occupy two weeks, and will be made either at the close of the Third Year or immediately before the opening of the regular work of the Fourth Year, as may be arranged by the Professor of Geology. The preparation of a geological map of the surveyed area, the examination of the specimens collected, and the writing of a detailed report upon the area, will form part of the work of the Fourth Year.

N.B.—A large amount of additional private reading will also be required of candidates for Honours.

DEPARTMENT OF BOTANY.

PROFESSOR:—D. P. PENHALLOW, D.Sc.
ASSISTANT PROFESSOR:—C. M. DERICK, M.A.
DEMONSTRATOR:—SIMON KIRSCH, M.A.

ORDINARY COURSES.

Second Year.

1. ELEMENTARY BIOLOGY.—Second half of the session. A course in the general morphology of plants, embracing a discussion of the general principles of morphology and classification, respiration, photosynthesis, nutrition, reproduction, symbiosis and adaptations, as also the relations of plants in geological time. These studies will be illustrated by means of special types taken from the principal groups.

This course is designed with special reference to those who may not be able to carry such work beyond the limits of an elementary course, and as a basis for more specialized work in the Third and Fourth Years.

Two lectures and two laboratory periods each week.

For the first half of this course, see Zoology 1A, page 167.

Third Year

2. SPECIAL MORPHOLOGY.—This course is designed to give a comprehensive knowledge of plant structures and relationships. The principles of development will be illustrated by type studies which may also serve as the basis of more special work in Bacteriology, Physiology, Ecology, or Palæobotany. It comprises:—

(*a*) *First Half of the Session.*—During the autumn term, attention will be directed to a study of the general histology of the plant, with special reference to the seed plants, as a basis for the more advanced work of the Fourth Year; and also to differential reactions, methods of staining, imbedding, section cutting and general technique.

This course will be especially adapted to chemists as applied to a study of food adulterants, etc.; to those who are intending to follow a medical course, as a preparation for animal histology, and it will be required of all who elect the course in the Fourth Year.

The course pre-supposes familiarity with the optics of the microscope as given in Physics 1, (3) of the First Year.

(*b*) *Second Half of the Session.*—Critical studies of the Thallophyta by means of selected types designed to illustrate the origin of organs, the origin and development of sex, the division of labour and the general laws of development.

Two lectures and two laboratory periods each week throughout the Session.

Fourth Year.

3. SPECIAL MORPHOLOGY.

(*a*) The complete study of a series of selected types, illustrating the structure, origin and relationships of the Bryophytes, and Pteridophytes.*

(*b*) The special morphology of the seed plants as represented by types illustrative of the principal groups, with special reference to relationship, development and adaptations.

* Students taking Honours in Geology and Mineralogy will also take Botany, 3 (a) during the first half of the Session.

Students entering upon this course will be required to present qualifications equivalent to the course of the Third Year.

Two lectures and two laboratory periods each week throughout the Session.

For the work of the Third and Fourth Years, each student will be required to provide himself with a laboratory drawing book of specified form, and with necessary pencils, slides and cover glasses.

4. SYSTEMATIC BOTANY. — A special course embracing herbarium work and the systematic study of the seed plants with reference to the determination of species, their environment and mutual relations. These studies will be prosecuted with special reference to a field knowledge of the ferns and flowering plants in the neighbourhood of Montreal.

This course is designed to complete and round out the study of the higher plants as given in the courses on Special Morphology (2 and 3). Students specializing in Botany will be required to follow this as part of the ordinary course of the Fourth Year. The course is also open to teachers of schools and to others who may have gained a knowledge equivalent to that represented by Gray's Structural Botany.

Two laboratory periods each week throughout the Session, with field days as may be arranged for.

5. STRUCTURE OF WOODS.—This course is designed to meet the special requirements of students proceeding to the study of forestry. It will deal with the practical study of the principal woods employed for structural purposes, their structure, modification under conditions of decay, mechanical stress, etc., determination of age, methods of preparing material for microscopical examination.

One lecture and two laboratory periods each week, reckoned as a half course.

One lecture and two laboratory periods each week.

Text-book:—Penhallow's North American Gymnosperms.

6. PHYSIOLOGY AND ECOLOGY.—A course of readings and lectures with laboratory work, forming an ordinary subject

for Forestry students and an Honours subject for Arts students.

One lecture and two laboratory periods throughout the Session. (Half course.)

Honour Courses.

(In Biology.)

Third and Fourth Years.

For work in Zoology, see page 167.

7. Candidates for Honours in the Third Year will, in addition to the ordinary work in Botany of that Year, read Darwin's Variation of Animals and Plants under Domestication during the first half of the session. These readings will be carried out jointly with the Zoological Department, and the examination will be held jointly by the two Departments. During the second half of the session, the work will consist of De Vries' Species and Varieties.

Students taking Honours in Biology will be required to take Chemistry in the Second Year, unless specially exempted by the Faculty on recommendation of the professors of Biology.

(For Honour Courses in Biology, see also page 102.)

The Biological Stations of Canada, now operating on the Pacific coast, Lake Huron and the Atlantic coast, offer exceptional opportunities for the prosecution of research. Students proceeding to the higher degrees in Biology will be eligible to occupy tables for investigation of an advanced character.

B.Sc. Course (Ordinary).

Third Year.

8. Students proceeding to the Degree of B.Sc. will be required to take the ordinary course of the Third Year Arts, (2) and, if specializing in Botany, also the Honour course in that subject for that Year.

Two lectures and two laboratory periods each week throughout the Session.

Fourth Year.

During the Fourth Year, students proceeding to the Degree of B.Sc. will be required to pursue special studies in extension of the work of the Fourth Year Arts, (3), in accordance with such plan as may be adopted by the B.Sc. Committee at the time of his entrance upon that Year.

Courses Leading to Forestry.

Students who contemplate the adoption of Forestry as a profession, are advised to take the following course of study as a preparation for graduate work at a Forestry School. This course is framed with special reference to those who may be proceeding to the Degree of B.Sc.

In the First and Second Years, Physics (1) and Elementary Biology will be regarded as essential elements of the course.

Third Year.

Special Morphology of Plants (2).
Honour readings with Colloquia (Botany 7).
Zoology (2).
Geology (1).
English Composition (4C).
Economics (2).

Fourth Year.

Special Morphology of Plants (3).
Systematic Botany (4).
Physiology and Ecology (6).
Structure of Woods (5).
Entomology (first half of the Session).
Mammals and Fishes (3B, second half of the Session).

DEPARTMENT OF ZOOLOGY.

PROFESSOR ————————
LECTURER:—J. STAFFORD, M.A., PH.D.
DEMONSTRATOR:— ————————

Second Year.

1A. ANIMAL BIOLOGY.

This course consists of a careful study of the laws of Biology as illustrated by a selected series of types. Special stress is laid on vertebrate structure and function, to the study of which most of the time is devoted. The types dealt with are Amœba, Paramœcium, a Flagellate, Hydra, Lumbricus, Amphioxus, Scyllium, Rana.

Two lectures and two demonstrations a week up till Christmas.

This course, taken along with the corresponding course in Botany, constitutes the course in general Biology.

1B. ANIMAL PHYSIOLOGY.

This course includes a study of the principal organic compounds found in the animal body and also of the principal functional activities of Vertebrates.

Two lectures and one demonstration a week from Christmas till Easter.

This course is to be taken by those students who intend to qualify for the Ontario Specialists' Certificate in Biology. It is recommended to all those who intend to proceed to Honours in Biology.

Third or Fourth Year.

2. INVERTEBRATE ZOOLOGY.

This course consists of a general review of all the classes of Invertebrate animals, and of the Tunicata and other Protochordata. Special attention is given to parasitic forms and those responsible for the production of disease.

Two lectures and two demonstrations a week throughout the Session.

CONTINUATION COURSES.

Fourth Year.

3A. VERTEBRATE ANATOMY AND HISTOLOGY.

This course includes a systematic study of the anatomy of the principal types of vertebrate animals, followed by a study of the histology of vertebrate tissues.

Two lectures and two demonstrations a week throughout the Session.

3B. COMPARATIVE EMBRYOLOGY.

This course consists of a study of the typical form of development and of its principal modifications in every class in the animal kingdom.

Two lectures and two demonstrations a week throughout the Session.

Students desiring to continue the study of Zoology during the Fourth Year may take either of the above courses. Students taking the seven year course in Arts and Medicine leading to the Degrees of B.A. and M.D., or B.Sc. and M.D., may take 2, 3A or 3B as a Third Year subject.

HONOUR COURSES.

Third Year.

Students proceeding to Honours in Biology shall take, during the first half of the Third Year, in addition to course 2, a series of special readings under the supervision of the Professor, with weekly colloquia. The subject for the coming session will be Darwin's Variation of Animals and Plants under Domestication. This work will be studied both in the Zoological and Botanical Departments, and the examination thereon will be held by the two Departments acting jointly. During the second half of the Session they shall pursue the study of Mammalian Anatomy as illustrated by the Rabbit.

One lecture and one demonstration per week.

This course is required in addition to 1A in order to enable students to obtain exemption from the Biology examination in the First Year Medicine. As the subject of Embryology has been united with that of Animal Biology by the Faculty

of Medicine and a joint examination in the two subjects instituted, students in Arts desiring to obtain complete exemption from the Biological examination in the First Year in Medicine must either take 3B in their Fourth Year or the latter portion of the medical course in Animal Biology. During the Fourth Year students proceeding to Honours shall take courses 3A and 3B. For students proceeding to the Degrees of B.A. and M.D. in eight years, the Anatomy of First Year Medicine may be substituted for 3A.

Text-Books:—For courses 1A, 2 and 3A the Text-book of Zoology by Shipley and MacBride is recommended; for 3B, Korschelt and Heider's Text-book of Embryology.

(*For Honour Courses in Biology, see also page* 102.)

The Biological Stations of Canada, now operating on the Pacific coast, Lake Huron and the Atlantic coast, offer exceptional opportunities for the prosecution of research. Students proceeding to the higher degrees in Biology will be eligible to occupy tables for investigation of an advanced character.

B.Sc. Course.

Students proceeding to the degree of B.Sc. will be required to take 2.

If they intend to specialize in Zoology in the Fourth Year, they shall, in addition, take the Honours work prescribed for the Third Year. In the Fourth Year they shall take courses 3A and 3B and, in addition, such extra reading and laboratory work as may be prescribed by the Faculty.

A special fee of $2.50 is charged against the caution money of each student attending the Zoological laboratory, in order to cover the cost of instruments and laboratory note-book, which are supplied to him and become his property. A student attending the laboratory for a second time is not called on to pay this fee.

METEOROLOGY.

SUPERINTENDENT OF OBSERVATORY:—C. H. McLEOD, MA.E.

Instruction in meteorological observations will be given in the Observatory at hours to suit the convenience of the senior students.

Certificates will be granted to those students who pass a satisfactory examination on the construction and use of meteorological instruments and on the general facts of Meteorology.

THE DIPLOMA OF COMMERCE.

The University offers a systematic course of study extending over two years, and intended as a preparation for entrance into business life. The course is not merely designed to impart instruction of a purely technical character. It is believed that a sound training in the essential branches of a liberal education affords the best equipment for the conduct of practical affairs. The object of the course is therefore rather to develop capacity than to impart special information. While adhering, however, to this general plan, the work of the commercial department is differentiated from that of the curriculum in Arts. Special stress is laid upon those subjects a knowledge of which is a necessity for business men, and the character of the instruction and the class methods adopted are specially suited for the end in view. The greatest emphasis is laid upon teaching the student to speak and write with fluency and accuracy, and to be able to apply a ready intelligence to practical business problems. The course is open to both men and women. On the successful completion of the course, a Diploma is awarded.

It is entirely within the aim of the University, in establishing this department, that the students therein should seek practical employment during the vacation period. Such employment, if of a suitable character, will form a useful complement to the work done in the University. It is confidently expected that the course will be viewed with such favor by the business community as to render the students particularly eligible applicants for positions in business houses.

ADMISSION.

(For entrance requirements, see page 23.)

COURSE FOR THE DIPLOMA.

First Year.

1. English.
2. History.
3. Mathematics (including Commercial Arithmetic.)
4. French.
5. Physical Geography; Commercial Geography.
6. Physics.

The work of the First Year is continued throughout the Summer Session (May 1st to June 12th), in the case of those subjects in which instruction is ordinarily provided. The work so done forms an integral part of the course for this Year.

Second Year.

1. English and History,
2. French (including Commercial French.)
3. Organization of Commerce and Industry.
4. Commercial Law.
5. Chemistry.
6. Accountancy.
7. Mathematics. (Algebra of the Second Year Arts—three hours weekly during the second half of the Session.)

ENGLISH.—The work done in this subject will be of an essentially practical character. The students will be given a constant drill in essay writing, the making of abstracts, *précis* and reports, and in such exercises as will train them to a ready use of English. Letter writing and business correspondence will be made important features of the work. A systematic training will be offered in reading and public speaking and in the oral presentation of reports. In addition to this a certain amount of formal instruction will be given in the elements of English Literature.

HISTORY. — The work here will consist of a survey of modern political history and a view of the structure of existing governments. The work in History will be closely co-related to the work in English. It is expected that the facility ac-

quired by the student in taking notes, writing his logical abstracts, etc., will serve as a useful practical exercise in connection with his English studies.

COMMERCIAL LAW.—By special arrangement with the Dean of the Faculty of Law, students will have the opportunity of studying, in this connection, an outline of the operation of Canadian government, federal, provincial and municipal. They will also have their attention directed to questions of every-day law, especially such as are likely to be met with in business practice.

FRENCH.—The course in French aims especially at imparting facility in the spoken and written language. During the Second Year, in addition to four hours a week of oral instruction, a fifth hour will be devoted to the teaching of Commercial French, and the forms to be used in correspondence and accounts.

MATHEMATICS.—The course in Mathematics will consist of Commercial Arithmetic and Algebra; the Arithmetic and Algebra being taught with special reference to their practical application.

SCIENCE. — The course in Science includes Physics and Physical Geography in the First Year, with Chemistry in the Second. The subjects will be presented in such a way that the students may not merely profit by the mental training afforded by the study of Natural Science, but may secure a general acquaintance with the scientific principles underlying modern industrial progress.

ORGANIZATION OF COMMERCE AND INDUSTRY.—Course given by the Department of Economics.

PHYSICAL AND COMMERCIAL GEOGRAPHY.—For description of courses in these subjects, see page 158.

ACCOUNTANCY. — In the Second Year formal instruction will be given in the principles and practice of accounting. The object will be to provide students with a sound knowledge of the science of accounting rather than to train them in the craft of keeping books.

REGISTRATION.

The names of students intending to enter the course should be sent in to the Registrar of the University not later than September 30th, 1909.

FEES.

The fees are the same as in the Faculty of Arts. See page 65.

For particulars regarding the P. S. Ross Exhibitions, see pages 44 and 47.

INSTRUCTION IN MILITARY SUBJECTS.

At the Universities of Oxford, Cambridge, Manchester, Birmingham, Dublin, Edinburgh and St. Andrew's, a scheme has been in operation for several years, the aim of which is to supply officers to the British army.

Two years ago, the Department of Militia at Ottawa intimated a desire that our Canadian universities should follow the example of those in Great Britain and Ireland and take some part in the education of gentlemen desirous of entering the British army and the Permanent Force in Canada. After due consideration, a scheme was drawn up which received the approval not only of the Canadian Militia Department, but also of the British War Office, and in accordance with this scheme instruction in the prescribed course has been given at McGill during the last two sessions, and will be arranged for in subsequent years.

General Qualifications of Candidates.

A candidate for a commission,

(a) Must be between the ages of 20 and 25 (for Indian army, 24) on the 1st of April, or on the 1st of October immediately preceding the half-yearly nomination for which he presents himself.

(b) Must be unmarried.

(c) Must be, in the opinion of the Army Council, in all respects suitable to hold a commission in the regular forces.

Academic Qualifications.

A candidate must:—

(a) Reside for three academic years at the university.

(b) Qualify for a degree in the Faculty of Arts, Applied Science, or Law.

(c) Produce a certificate of good character from the Principal.

A candidate who has graduated with first class honours, or with other distinctions recognized by the Army Council as

equivalent thereto, will, if nominated, be entitled to count one year of seniority on obtaining his commission.

A candidate for the Royal Artillery must satisfy the Nomination Board that he has attained the standard of mathematics required by the Army Council.

Military Qualifications.

(a) A candidate must attend a course of lectures in military subjects and qualify at a subsequent examination.

(b) Must be attached for six consecutive weeks in each of two consecutive years, or 12 consecutive weeks in one year, to a unit of the Permanent Force. Before such attachment he will be required to have been instructed in squad drill, in accordance with infantry training, under arrangements made by the university to which he belongs.

(c) Must be passed by a medical board as physically fit.

(d) Must be nominated by a board appointed for that purpose.

Course of Lectures.

The lectures in preparation for the examination in military subjects are as follows:—

SUBJECT	Number of Lectures.	Marks at Examination.	Fee.
Group A.			
(1) Military History and Strategy	28	1000	$5.00
(2) Military Tactics	28	1500	
Group B.			
(1) Military Engineering	20	1000	$5.00
(2) Military Topography	20	1000	
Group C.			
(1) Military Law	12	250	$5.00
(2) Military Administration	12	250	

In the case of graduates in Applied Science, in the course of Civil Engineering and Surveying, the number of lectures in Military Engineering and Topography may be reduced by one-third.

An examination is held twice a year (commencing on the last Tuesday in March and on the second Tuesday in October), Candidates may take all three Groups at one examination or may divide them into two, taking Groups "A" and "C," or "B" and "C" at one time and the remaining Group at another.

Candidates are recommended to take six weeks of their training with the Permanent Forces before commencing to attend lectures, as they will find it a considerable help in understanding the various subjects. This is, however, by no means indispensable, and the whole course of lectures can be taken, if desired, before the candidate is attached to a military unit.

All details as to the procedure and conditions of attachment to a regular unit, the physical requirements and medical examination, and other matters not specified herein, will be found in the War Office Regulations, a copy of which will be issued to each candidate on registration.

DEPARTMENT OF MUSIC.

LOCAL EXAMINATIONS.

The Public Local Examinations held during the last few years by McGill University, in conjunction with the Associated Board of the Royal College of Music and the Royal Academy of Music, England, will in future be held under the auspices of the University alone. For syllabus apply to the secretary of the McGill University Conservatorium of Music.

DIPLOMA OF LICENTIATE IN MUSIC.

Candidates for this diploma may elect to be examined either in:—

Theoretical subjects and composition.....(Class I)
Practical subjects as performers.....(Class II)
Both theory and practice as teachers.....(Class III)

The candidate must pass three examinations.

First Examination:—

(a) Rudiments of music, including sight reading and ear tests.
(b) Harmony in four parts up to, and including, dominant 9th (a practical test will be substituted for performers).
(c) Counterpoint in two parts (practical test substituted for performers).
(d) Chief subject of study.

The possession of a Grade I certificate of the Local Theoretial Examinations will exempt candidates in Class I from this examination. In Class II, exemption may be claimed if the candidate has passed Grade I (Practical) and Grade II or Grade III (Theoretical) of the Local Examinations.

In Class III, candidates must hold Grade I (Theoretical) and Grade II (Practical) certificates in order to claim exemption.

In the second and third examinations, between which a year must elapse, the requirements for Classes I and III are, on general lines, similar to those for the First and Second Mus. Bac. Examinations respectively. In the case of Class II, practical tests are substituted for many of the theoretical tests. Candidates in Class III will, in the Final Examination, have to pass in "The Art of Teaching Music," which will be partly *viva voce* and partly paper work.

In both the Licentiate and Mus. Bac. Examinations, considerable latitude is allowed in the choice of a second practical study. Total exemption from examination in it will be allowed if the candidate possesses recent certificates gained in the higher grades of the Local Examinations in that subject.

Those holding the diploma of L. Mus., can at any time during the five years immediately following their passing that examination, enter for the Mus. Bac. final examination, but must pass the Matriculation examination.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF MUSIC.

Candidates for the Degree must have passed the following examinations:—

1. The Matriculation Examination. (See page 29.)
2. The First Examination in Music, at the end of the First Year.
3. The Second Examination in Music, at the end of the Second Year.
4. The Final Examination.

The particulars of the work for each of the above examinations are as follows:—

First Examination in Music:

(a) Advanced Rudiments.
(b) Harmony in 3 and 4 parts.
(c) Counterpoint up to 3 parts.
(d) Form and analysis. Questions will be given on accent, cadence, metre, rhythm, phrasing, etc., and on form, shown in the work of the early classicists (Scarlatti, Bach, Mozart and Haydn).

(e) General outlines of Musical History.
(f) Chief and Second Practical Study (or instead of one of these the composition of a song (or songs) or a miniature suite for Piano (or Violin and Piano or any other combination).

Second Examination in Music:

(a) Harmony in not more than 4 parts.
(b) Counterpoint in not more than 4 parts.
(c) Canon in 2 parts and Fugal Exposition up to 4 parts.
(d) History of Music from the 16th century to the present day, with some critical knowledge of a few compositions, either studied during the year or prescribed beforehand.
(e) Form and Analysis.
(f) Elementary knowledge of Acoustics, or Physiology of Voice.
(g) Chief and Second Practical Study or, instead of one of these, the composition of:—(1) A movement in Sonata form for Pianoforte (or Piano and Violin, or any other combination), or (2) Chorus with independent accompaniment, or (3) Suite for Strings.

Final Examination in Music:

(a) Harmony up to 5 parts.
(b) Counterpoint up to 5 parts.
(c) Double counterpart in 8ve, 10th and 12th.
(d) Canon and Fugue in 4 parts.
(e) History of Music from the earliest to the present time.
(f) Form and Analysis. A knowledge will be required of such works as the following:—Bach's 48 Preludes and Fugues, Beethoven's Sonatas, Schubert, Schumann and Brahms' Songs, Mendelssohn's Psalms and such Oratorios as Elijah and St. Paul. (The candidate should send in a list of works, in which he or she is prepared to be examined, a few weeks before the day of examination.)

(g) Instrumentation—a knowledge of the compass and capabilities of all instruments in the modern orchestra, and the scoring of a given passage in a given time, also the reading at sight of a short excerpt from an easy score of an early work of Mozart or Beethoven.

(h) Chief and Second practical study (or in lieu of both of these a composition can be sent in by the candidate containing 4-part chorus, a solo or duet, an unaccompanied quartette and a 4-part Fugue—the whole scored for stringed instruments with independent accompaniment.

Graduates in Music of other Universities can be admitted to an 'ad eundem' degree in Music of this University on payment of the necessary fees.

REQUIREMENTS FOR THE DEGREE OF DOCTOR OF MUSIC.

Bachelors of Music of McGill University, after the lapse of a period of three years from the time of taking the Degree of Bachelor of Music, may proceed to the Degree of Doctor of Music, the requirement for which is a composition in extended form, such as an oratorio, opera or cantata. This exercise must contain eight part writing and fugal treatment, and must be scored for a full orchestra, which original and unaided composition, if approved of, may be publicly performed by the candidate in the University or some other fit and proper place, at the discretion of the University. In addition, an examination in the higher forms of composition shall be necessary, together with a critical knowledge of the full scores of certain prescribed works.

Further particulars with regard to Degrees and Diplomas in Music, as well as those relating to Local Examinations, not included in the above, will be found in the special Music Syllabus obtainable on application to the secretary of McGill University Conservatorium of Music. All the above examinations will be held in Montreal and other centres in the Dominion of Canada where McGill University has local representatives, provided a sufficient number of candidates apply.

SPECIAL INFORMATION REGARDING THE FACULTY OF APPLIED SCIENCE.

THE SESSION 1909-10 WILL OPEN ON FRIDAY, OCTOBER 1ST, 1909. STUDENTS ENTERING THE UNIVERSITY WILL REGISTER AT THE REGISTRAR'S OFFICE ON THE 28TH, 29TH AND 30TH OF SEPTEMBER; STUDENTS PREVIOUSLY ENROLLED WILL REGISTER IN THE SAME PLACE ON OCTOBER 1ST.* FIELD WORK IN SURVEYING WILL COMMENCE ON MONDAY, SEPTEMBER 6TH, 1909.

FACULTY COMMITTEES.

ON ADMISSION OF STUDENTS FROM OTHER UNIVERSITIES.—The Dean, Professor Durley and Professor Murray.

ON PARTIAL COURSES, STANDING AND PROMOTION.—The Dean, Professor McLeod, Professor Murray and Professor Keay.

ON EXAMINATIONS AND TIME TABLE.—Professor Porter, Professor Murray and Professor MacKay.

Particulars regarding the following points will be found by referring to the pages mentioned:—

	PAGES
Admission from other Universities	35
Admission of Partial Students	14
Attendance	36
Exhibitions and Scholarships	56
Fees	67
Matriculation	25
Medals and Prizes	62

For Time Tables of Lectures and Examinations, see first part of Calendar.

For complete registration regulations see page 36.

DEGREES AND EXAMINATIONS.

(1) *Degrees.*

The Degrees conferred by the University upon such undergraduates of the Faculty as fulfil the conditions and pass the examinations hereinafter stated are, "Bachelor of Architecture (B.Arch.), and Bachelor of Science" (B.Sc.), mention being made in the Diploma of the particular course of study pursued.

Students who take the Bachelor of Science Degree in one of the courses provided by the Faculty may graduate in any of the remaining courses by attending one or more subsequent sessions.

Particulars regarding the combined course in Arts and Applied Science leading to the Degrees of B.A. and B.Sc. (Applied Science) in six years, are given on page 106.

By a resolution of the Institution of Civil Engineers (England) the holders of the Degree of B.Sc., in the courses of civil, electrical, mechanical, and mining engineering, who are desirous of becoming Associate Members of the Institution are exempted from the examination prescribed for admission.

(2) *Examinations.*

1. Sessional examinations are held in all subjects. In addition, there are Christmas examinations in certain subjects, and class examinations are held from time to time, at the option of the Professor.

2. Credit may be given in the sessional standing for class examinations held during the session, and also for the Christmas examinations.

3. Students who have failed in one or more subjects of the curriculum (pp. 186 to 206) shall be required to make good their standing by passing:—

(1) The supplemental examinations, (for students attending the Survey School, September 1st to 4th; for all others, September 23rd to 28th),† *or*

(2) The sessional examinations, *or*

† Students will not be permitted to come up for both of these examinations.

(3) The examinations of the summer courses when such examinations are equivalent to the sessional examinations,† or

(4) Special examinations, which shall be given only under exceptional circumstances and by authority of the Faculty.

4. Students who, at the commencement of lectures in any session have failed to make good their standing in three or more subjects, or in any two major subjects,* shall, if they remain in attendance as undergraduates, be required to repeat all the work in those subjects.

5. Partial students are entitled to examinations in the subjects which they have taken as partial students, but not to supplementals, nor to examinations in other subjects.

ENGINEERING SOCIETIES

1. The headquarters of the Canadian Society of Civil Engineers are located in Montreal. Students in all departments of engineering are strongly recommended to become student members of the Society, which they can do on payment of a fee of $2.00. They are then entitled to the two volumes of "Transactions" which are annually published, and to the use of the Societys rooms on Dorchester Street. They also have opportunities of meeting the prominent engineers of the country and of being present at the fortnightly sessions, at which papers are read on current engineering subjects and works of construction.

Students are invited to compete for the prizes which are offered by the Society (see p. 58).

2. Students in Mining and Metallurgy are strongly recommended to become members of the McGill Mining Society, which, although a student body (see p. 242), is affiliated with the Canadian Mining Institute, the headquarters of which are in Montreal. Members of this Society receive the Transactions of the Institute without extra expense, and are entitled

* These subjects are indicated in the course for each year by a section mark. (§)

† These examinations are open only to students who have attended the summer courses and who have paid the regular fees therefor.

to attend all meetings and to compete for the prizes offered (see p. 62).

COURSES OF INSTRUCTION

The instruction in this Faculty is designed to afford a thorough training of a practical as well as a theoretical nature, in the following branches of Applied Science:—

I.—Architecture.
II.—Chemistry.
III.—Chemical Engineering.
IV.—Civil Engineering and Surveying.
V.—Electrical Engineering.
VI.—Mechanical Engineering.
VII.—Metallurgical Engineering.
VIII.—Metallurgy.
IX.—Mining Engineering.
X.—Railways.

The regular work of each session in Applied Science will end about the 1st of May, at the close of the sessional examinations. The summer work will commence as soon as practicable thereafter, and will be continued for six weeks (see Reg. 2, below).

SUMMER WORK.

1. All undergraduates entering the Second Year (excepting those taking the Practical Chemistry Course), students in the Civil Engineering, Mining Engineering and Transportation (Railways) Courses entering the Third Year, and students in the Civil Engineering Course entering the Fourth Year, are required to be in attendance at the Surveying School on the 6th of September, when the field work in Surveying and Geodesy will commence. (See page 247.)

2. Undergraduates in the Mechanical, Electrical and Metallurgical Engineering Courses are required to attend a summer session of about six weeks between the Second and Third Years. The work to be done in the first two of these courses is as follows:—Mechanical Drawing (Machine Design and Machine Drawing), 10 hours per week: Physics and Physical Laboratory Work, 11 hours per week; Shopwork (Smith shop and Foundry), 11 hours per week. Undergraduates in Metallurgical Engineering will take courses in qualitative and quantitative chemical analysis.

3. Undergraduates in the Mining and Metallurgical Courses are required to attend the Summer School in Mining, held between the Third and Fourth Years (four to six weeks of field-work). This school is held in May and June. (See page 242.)

4. During the summer vacation following the close of each session, all students entering the Third and Fourth Years are required to prepare a thesis on a subject specified by the Faculty, or make a report on some practical work in course of construction. The marks given for these theses are added to the results of the sessional examinations, but no credit will be given for any report handed in later than 10 days after the opening of the Session.

GENERAL OUTLINE OF COURSES.

The curriculum, as laid down in the following pages, may be changed from time to time as deemed advisable by the Faculty. The work prescribed for the first two years is the same in all courses, except in Practical Chemistry and in that leading to the Degree of Bachelor of Architecture.

The subjects of instruction in these years for all courses, except those above-named, and the number of hours per week devoted to each, are as follows:—

FIRST YEAR.

SUBJECT	Lectures per week.		Laboratory etc. periods* per week.		For details see page.
	First Term	Second Term.	First Term	Second Term	
§Algebra	5	5	..	..	229
§Desc. Geometry	..	..	2	2	220
Dynamics	2	2	..	..	229
English	1	1	..	..	223
Freehand Drawing	..	..	1	1	224
Geometry	3	..	..	..	228
Mech. Drawing	..	..	1	1	231
§Physics	2	2	1	1	243
Shopwork	..	..	2	2	254
§Trigonometry	..	3	..	..	229

§Major subject. *A laboratory period is three hours.

All students of the First Year who at the close of the first term have failed in any four of the following five subjects, which form part of the work of the first term, viz., Dynamics, Geometry. Algebra, Physics, Descriptive Geometry, will be required to withdraw from the University.

SECOND YEAR.

SUBJECTS	Lectures per week.		Laboratory etc. periods* per week.		For details see page.
	First Term	Second Term	First Term	Second Term	
Anal. Geometry.....	3	..	..	..	229
§Calculus.....	3	3	..	..	229
§Chemistry.....	3	3	1½	1½	210
Graphical Statics...	..	..	..	1	213
§Mapping	..	..	1	1	247
§Materials of Const.. .	1	1	..	..	213
§Mech. Drawing.....	..	..	1	1	231
§Mechanics.....	..	3	..	..	213
§Mech. of Machines ..	3	3	..	..	230
§Physics	2	2	1	1	244
Shopwork.....	..	..	1	1	254
Surveying.....	2	2	..	..	246

Surveying Field Work, 4 weeks, beginning September 6th, 1909.

I. Architecture.

The Architectural Course, qualifying for the Degree of Bachelor of Architecture (B.Arch.), differs from the others in the Faculty of Applied Science in that the curriculum is from the First Year separate and distinct, the studies in that year being divided between the Faculties of Arts and Applied Science.

In the Second Year the architectural studies proper commence and the amount of time devoted to design increases in the Third and again in the Fourth Years.

Students of Architecture will attend the Summer School in surveying before entering the Second Year.

Broadly speaking, the lectures may be divided into five groups dealing respectively with History, Construction, Theory of Design, Ornament and Decoration, and Professional Practice, and in all courses studio work goes hand in

§ Major subject. *A laboratory period is three hours.

hand with oral teaching, with a view to the practical application of the theory, while at the same time affording opportunity for the acquisition of power in draughtsmanship and practice in Design, *this latter being the chief aim of the course.*

A modification of the Arts matriculation examination (with French compulsory, and, at the discretion of the Professor of Architecture, Freehand and Geometrical Drawing added) is required of those studying for the Degree of B.Arch.

The lectures given in the Third and Fourth Years are, as far as possible, in the morning, to enable partial students working in offices to avail themselves of the instruction. Such lectures will be found of use to those studying for the R.I.B.A. and the P.Q.A.A. examinations.

The subjects of instruction and the number of hours per week devoted to each are as follows. (The allocation of time is liable to be varied according to the aptitude of the student) :—

FIRST YEAR.

	Hrs.		Hrs.
(s) English	3	Architectural Drawing	4
(a) French	4	(s) Descriptive Geometry	6
(a) History	4	Freehand Drawing	3
(a) Mathematics	4	(s) Physics Lab	4
(a) Physics	2		

SECOND YEAR

	Hrs.		Hrs.
(a) Mathematics	3	(s) Surveying	2
History of Architecture	2	(s) Mapping	3
Archt. Drawing, Historical	4	Freehand Drawing	3
Elements of Architecture	1	Ornament and Decoration	1
Design	6	Detailing	3
Building Construction	1		
Working Drawings	4		

THIRD YEAR.

	Hrs.		Hrs.
History of Architecture	2	Sanitation and Heating	1
* Archt. Drawing, Historical.	4	Structural Engineering	2
Ornament and Decoration.	1	Structural Eng. Details	4
Detailing	3	Theory of Design	1
(k) Descriptive Geometry	1	Architectural Design	10
(k) Perspective	3	Freehand Drawing	6

Subjects marked thus (a) are taken in the Faculty of Arts, while subjects marked (s) are taken in the Faculty of Applied Science, other subjects being dealt with in the Department of Architecture.

FOURTH YEAR.

	Hrs.		Hrs.
* History of Architecture	2	Professional Practice	1
* Archt. Drawing, Historical	4	Specifications	3
Planning	1	Structural Design	6
Modern Architecture	1		
Architectural Design	18		

(k) First term only. * Third and Fourth years together in alternate years.
Subjects marked thus (a) are taken in the Faculty of Arts, while subjects marked (s) are taken in the Faculty of Applied Science, other subjects being dealt with in the Department of Architecture.

II. Chemistry.

The course in Chemistry is arranged to give the student in the first two years a thorough knowledge of the fundamental principles of Chemistry and Physics, with sufficient Mathematics to enable him to understand the theoretical parts of these subjects.

In the two subsequent years Chemistry, analytical, organic, and physical, is taught both in its purely scientific aspects and in its relations to the various departments of commercial work. Special facilities are afforded for the prosecution of graduate research work in all the branches of Chemistry.

The subjects of instruction and the number of hours per week devoted to each are as follows:—

FIRST YEAR.

As in other Engineering Courses. For details, see page 186.

SECOND YEAR

SUBJECT.	Lectures per week		Laboratory, etc., periods* per week.		For details see page
	First Term	Second Term	First Term	Second Term	
Analytic Geometry	3	..	..	..	229
§Calculus	3	3	..	..	229
§Chemistry	3	3	5	..	210
§Inorganic Qualitative	..	1	..	5	211
§Mechanics	..	3	..	..	213
§Physics	2	2	1	1	244

THIRD YEAR

SUBJECT	Lectures per week.		Laboratory, etc., periods* per week.		For details see page.
	First Term	Second Term	First Term	Second Term	
§Geology	3	3	1	1	225
Inorganic Chemistry	1	..	5	5	211
Metallurgy	2	..	..	..	234
§Mineralogy	2	2	..	2	225
§Organic Chemistry	2	..	2	..	211
§Physical Chemistry	..	2	..	..	211

FOURTH YEAR.

SUBJECT	Lectures per week.		Laboratory, etc., periods* per week		For details see page.
	First Term	Second Term	First Term	Second Term	
Electro-Chemistry	..	2	..	1	212
Industrial Chemistry	2	2	..	..	212
Physical Chemistry	2	2	2	2	212
Fire Assay (alt.)	..	..	1	1	235
Inorganic Quant. (alt.)	1	1	4	4	212
Mineralogy (alt.)	2	..	1	..	225
Ore Deposits (alt.)	..	3	..	..	226
Organic Chem. (alt.)	2	2	6	5	212

* A laboratory period is three hours. § Major subject.

III. Chemical Engineering.

The aim of this course is to prepare the student for the duties of managing engineer in a chemical manufactory. As such he must not only be conversant with the chemical processes involved, but he may also be required to design and oversee the construction of new buildings and plant and to direct the installation and use of machinery. Accordingly the

course of study seeks to combine a considerable amount of engineering with the maximum of chemical training which can be attained without overpressure during the four years of the curriculum.

During the first two years the course is identical with that in the other branches of engineering, but between the Second and Third Years students must attend a summer session of about six weeks in the chemical laboratories.

In the Third Year specialisation commences, the time being about equally divided between chemical and engineering studies, and in the vacation between the Third and Fourth Years all students must give at least six weeks to work in some chemical industry or to equivalent laboratory work satisfactory to the Professor of Chemistry.

In the Fourth Year the engineering studies are completed and the chemical studies which predominate are arranged in several alternative courses to meet the requirements of the students who cannot possibly study more than a few of the very varied chemical industries. These alternative courses fall broadly under one or other of two headings:—(*a*) inorganic and electrochemical, (*b*) organic. Should a student desire to prepare for an industry which requires more engineering knowledge than is provided in the regular course he may substitute additional engineering subjects for some of the chemical work. Details will be arranged on application to the Faculty through the Professor of Chemistry.

While every effort will be made to supply detailed information as to methods and plant of many of the important industries, and to provide facilities for experimentally carrying out the processes involved, the main aim will be devoted to the study of the principles which underlie economical production.

The subjects of instruction and the amount of time devoted to each are as follows:—

First and Second Years.

As in other Engineering Courses. For details, see pages 186 and 187.

THIRD YEAR.

SUBJECT	Lectures per week.		Laboratory, etc., periods* per week.		For details see page.
	First Term	Second Term	First Term	Second Term	
Anal. Mechan.	2	..	..	..	214
Mechan. Engineering	2	2	1	1	232
Metallurgy	2	..	..	..	234
Inorganic Chem.	1	..	3	2	211
Physical Chem.	..	2	..	..	211
Organic Chem.	2	..	2	..	211
Engineering Economics	..	2	..	..	228
Strength of Materials	2	2	1	..	214
Struct. Engineering	..	1	..	1	215
Chem. Lab. (alt.)	..	..	4	6	211
Mineralogy. (alt.)	2	2	..	2	225
Ore Dressing (alt.)	..	2	..	1	239

FOURTH YEAR.

SUBJECT	Lectures per week.		Laboratory, etc., periods* per week.		For details see page
	First Term	Second Term	First Term	Second Term	
Electrical Engineering	2	2	1	1	223
Hydraulics	2	..	..	..	217
Industrial Chem.	2	2 (opt.)	..	6	212
Law	1	1	..	..	228
Electro-Chem. (alt)	..	2	..	1	212
Electric Furnace (alt.)	..	1	..	..	236
Fire Assay (alt.)	..	..	1	1	235
Inorganic Quantit. (alt)	1	1	7	..	212
Organic Chem. (alt.)	2	2	6	..	212
Physical Chem (alt)	2	1	2	1	212

* A laboratory period is three hours.

IV. Civil Engineering.

The first two years of the undergraduate course in Civil Engineering are devoted mainly to preparatory work in Mathematics, Mechanics, Physics, Chemistry, Drawing, and Shopwork.

In the Third Year the strength of materials is a principal subject of study. The knowledge of this subject and of mechanics already gained, is applied to simple problems in the analysis of stresses in framed structures, and to the design of foundations, girders, columns, roof-trusses and the like. Courses in Surveying extend throughout the Second and Third Years with summer school sessions for fieldwork at the beginning of the Second, Third and Fourth Years. Courses in Railway and Municipal Engineering run through the Third and Fourth Years.

In the Fourth Year comprehensive courses are given in Geodesy, Hydraulics, Hydraulic Machinery and Theory of Structures. Much of the time in this year is, however, devoted to the details of Bridge Design, as it is thought that a thorough knowledge of this subject is a suitable preparation for work in the entire field of structural design.

Facilities are afforded to graduate students who wish to engage in research work in the strength and elasticity of materials and the like, or in more advanced work in structural design than can be overtaken in the undergraduate courses. A post-graduate course in Practical Astronomy and Geodesy will also be provided for any who may desire to specialize in Geodetic work.

The subjects of instruction and the number of hours per week devoted to each are as follows:—

FIRST AND SECOND YEARS.

As in other Engineering Courses. For details, see pages 186 and 187.

THIRD YEAR.

SUBJECT	Lectures per week.		Laboratory, etc., periods* per week		For details see page
	First Term	Second Term	First Term	Second Term	
Desc. Geometry	1	1	1/3	1/3	220
§Geology	2	2	1	1	225
§Mapping	..	..	2	2	247
Foundations and Masonry	1	..	1	..	215
Mathematics (Diff. Equations)	optional				229
Mechanics	2	..	..	..	229
Mech. Engineering	2	2	1	1	232
Mun. Engineering	1	1	..	..	218
Railway Engineering	2	2	..	..	250
§Strength of Materials.	2	2	..	1	214
Struct. Engineering	..	1	..	1	215
Engineering Economics	..	2	..	..	228
§Surv. & Prac. Astro	2	2	..	..	246

Surveying Field Work, 4 weeks, beginning September 16th, 1909.

FOURTH YEAR.

SUBJECT	Lectures per week		Laboratory, etc. periods* per week		For details see page
	First Term	Second Term	First Term	Second Term	
Bridge Design	2	2	2	3	216
Elec. Engineering	2	2	1	1	222
Geodesy	2	..	1	..	248
Graph. Statics	..	..	1	1	216
Hydraulics	2	2	1	..	217
Municipal Eng.	..	2	..	..	218
Railway Eng.	2	2	..	..	253
Strength of Mats. Lab	..	..	..	1	216
Theory of Structures	3	3	..	..	216
Engineering Law	1	1	..	..	228

Surveying Field Work, 4 weeks, beginning Sptember 6th, 1909.

* A laboratory period is three hours. §Major subject.

V. Electrical Engineering.

The First and Second Years of the undergraduate course of instruction in Electrical Engineering are devoted, mainly, to a preparation in Mathematics, Physics, Chemistry, Mechanics, Drawing, Shopwork and work in the physical and chemical Laboratories.

The electrical studies of the Third Year embrace a consideration of current flow, in circuits of different kinds, the principles of electro-magnetism, electrical measurements and the design and action of commutating machinery.

The Fourth Year is devoted principally to electrical work, and includes lectures and recitations on variable and alternating current phenomena, the principles of action and the design of alternating current machinery, electric lighting and systems of power distribution, central station design and operation, urban and inter-urban railways and long distance power transmission.

In the second term of the Fourth Year a choice may be made between electro-chemistry and hydraulics. Each Fourth Year student is required to present a thesis giving the results of a suitable experimental investigation.

The subjects of instruction and the number of hours per week devoted to each are as follows:—

FIRST AND SECOND YEARS.

As in other Engineering Courses. For details, see pages 186 and 187.

THIRD YEAR.

SUBJECT	Lectures per week		Laboratory, etc., periods* per week		For details see page.
	First Term	Second Term	First Term	Second Term	
Anal. Mechs.	2	..	..	..	214
§C. C. Machy. & Lab.	2	2	2	2	220
Chemistry and Lab.	..	..	$\frac{2}{3}$	$\frac{2}{3}$	211
Math. (Diff. Equa.)	..	2	..	..	229
Mach. Design	2	2	..	..	231
Mech. Eng. & Lab.	2	2	1	1	232
§Mech. Drawing	..	..	1	1	231
Mech. of Mach.	2	2	..	..	230
§Physics & Lab.	1	1	$1\frac{2}{3}$	$1\frac{2}{3}$	245
§Str. of Mat. & Lab.	2	2	1	..	214

See note concerning summer work on page 185.

FOURTH YEAR.

SUBJECT	Lectures per week		Laboratory, etc., periods* per week		For details see page
	First Term	Second Term	First Term	Second Term	
Alt. Currents & A. C. Machy. & Lab.	3	3	3	3	221
Designing	..	..	$1\frac{1}{3}$	$1\frac{1}{3}$	221
El. Light & Power Distribution	3	..	..	..	221
Elec. Traction	..	3	..	..	221
Hyd. & Lab.	2	..	1	..	217
Hydraulics and Elect. Chem. (Alt.)	..	2	..	1	218 212
Mach. Design	2	..	..	..	231
Mech. Eng. Lab.	..	..	1	1	234
Thermodyamics	2	2	..	..	222

* A laboratory period is three hours. § Major subject.

VI. Mechanical Engineering.

The complete undergraduate course in Mechanical Engineering extends over four years, and provision is made for a fifth year or graduate course in advanced experimental and other work.

The first two years of the undergraduate course of instruction are largely occupied in preparation in Mathematics, Physics, Chemistry, Mechanics, Drawing, and Shopwork.

During the Second Year one lecture and one exercise class per week are devoted to the kinematics and dynamics of machines. While motion without regard to force is treated in the Kinematic course, the action of external forces in producing or changing motion in the links of mechanisms is considered in the Second, Third and Fourth Years, under the head of Dynamics of Machines. The lectures in these two subjects form the course in Mechanics of Machines. Exercise classes are held for the purpose of working the problems necessary for illustration, graphic methods being used in most cases.

The work in Machine Design is carried on during the Third and Fourth Years in conjunction with the practical instruction in mechanical designing and drawing in the Drawing Rooms.

The course in Thermodynamics (see p. 232) deals more particularly with the theory of Heat Engines. Two lectures per week are given, and time is assigned for additional graphical and experimental work in connection with the subject.

A course of two lectures per week is given during the Third and Fourth Years in Mechanical Engineering as applied to questions connected with Power Installations and Prime Movers. A large portion of the work of this course is supplementary to, and follows, the instruction given in Thermodynamics and Machine Design, which extends over the Third and Fourth Years. (See p. 232.)

Students in the Department of Mechanical Engineering take a systematic course in electrical engineering during the Third and Fourth Years. (See p. 223.)

Instruction in Workshop Practice (see p. 254) is given in each of the four years. It is of a systematic nature, and is

intended to prepare for, but by no means to replace, that practical experience of workshop operations on a commercial basis which every mechanical engineer must obtain for himself.

Students intending to take the Mechanical Engineering Course are advised to confer with the Professor with a view of utilising the summer vacations for obtaining this experience.

The work of the lecture rooms is illustrated throughout the course by experimental work carried out by the student, and by demonstrations in the laboratories of the department.

Arrangements are made for occasional visits to power plants and manufactories of importance.

The subjects of instruction and the number of hours per week devoted to each are as follows:—

FIRST AND SECOND YEARS.

As in other Engineering Courses (see pages 186 and 187), with additional course in May and June for Second Year (page 185).

THIRD YEAR.

SUBJECT	Lectures per week		Laboratory etc., periods* per week		For details see page
	First Term	Second Term	First Term	Second Term	
Strength of Materials.	2	2	..	..	214
Electrical Eng. & Lab	2	2	1	1	222
§Machine Design	2	2	..	..	231
§Mechanical Drawing .	..	..	2	1	231
Mechanical Eng. & Lab	2	2	1	1	232
Mechanics.....	2	..	..	..	214
§Mech. of Machines ..	2	2	..	..	230
Shopwork.,.....	..	..	1	1	254
Engineering Economics	..	2	..	..	228
Strength of Materials Lab	..	..	1	1	216
Structural Eng. & Drawing	..	1	..	1	215
§Thermodynamics....	2	2	..	..	2 2

See note concerning summer work on page 185.
§Major Subject. *A laboratory period is three hours.

FOURTH YEAR.

SUBJECT	Lectures per week		Laboratory, etc., periods* per week		For details see page
	First Term	Second Term	First Term	Second Term	
Designing	..	..	2	3	231
Electrical Eng.	1	1	..	..	223
Engineering Law	1	1	..	..	228
Hydraulics & Hyd. Lab	2	2	1	..	217
Machine Design	2	2	..	..	231
Mech. Eng. & Lab	2	2	4	4	233
Mechanics of Machines	2	2	..	..	230
Shopwork	..	..	1⅓	1⅓	254
Thermodynamics	2	2	..	..	252

VII. Metallurgical Engineering.

This course is designed for students intending to enter metallurgical works such as iron or steel works or smelters. It includes instruction in the engineering, chemical and metallurgical studies required by practising metallurgists.

A certain amount of mining is included in the Third Year's curriculum in order to show the relation between mining and metallurgy; but the course is not intended for students wishing to become mining engineers.

Students who wish to specialize on the chemical side of metallurgy are recommended to select Course VIII.

The first two years of the undergraduate course are mainly devoted to Mathematics, Mechanics, Physics, Chemistry, Drawing and Surveying.

Immediately after the Second Year there is a short summer course in the chemical laboratories.

In the Third Year of the Metallurgical Engineering Course instruction is given in Chemistry, Assaying, Geology, Mineralogy, Metallurgy, Mining, Ore-Dressing, and Mechanical, Structural and Business Engineering.

Between the Third and Fourth Years there is a summer school in Metallurgical Works.

In the Fourth Year instruction is given in Chemistry, Electrical Engineering, Law, Hydraulics, Metallurgy and Ore-Dressing. Metallurgical Designing and Laboratory Work form important parts of the course. The laboratory work is partly Metallurgical and partly Ore-Dressing, in the first term, and in the second term a special piece of experimental work is undertaken by each student.

The subjects of instruction and the number of hours per week devoted to each are as follows:—

FIRST AND SECOND YEARS.

As in other Engineering Courses. For details, see pages 186 and 187.

After the Second Year there is a six weeks' summer school in qualitative and quantitative analysis in the Chemical Laboratory, beginning about the first of May.

THIRD YEAR.

SUBJECT	Lectures per week		Laboratory, etc., periods* per week		For details see page
	First Term	Second Term	First Term	Second Term	
§Assaying	½	..	2	..	235
§Chemistry	1	..	2	..	211
§Geology	2	2	⅓	⅓	225
§Mechanical Engin	2	2	1	1	232
Mechanics	2	..	..	..	214
§Metallurgy	3	1	1	..	234
§Mineralogy	2	2	..	2	225
Mining	..	2	..	..	239
Ore Dressing	..	2	..	1	239
Engineering Economics	..	2	..	..	228
§Strength of Materials	2	2	1	..	214
Structural Engin	..	1	..	1	215

See note concerning summer work on page 185.
*A laboratory period is three hours. §Major Subject.

After the Third Year there is a six weeks' field course in Geology, Mining and Metallurgy, beginning about the first of May.

FOURTH YEAR.

SUBJECT	Lectures per week		Laboratory, etc., periods* per week		For details see page
	First Term	Second Term	First Term	Second Term	
Chemistry	3	1	4	1	212
Electrical Engineering	2	2	1	1	223
Engineering Law	1	1	..	..	228
Hydraulics	2	..	..	..	217
Metallurgy	4	4	..	..	236
" Colloquium	..	1	..	..	237
" Design	..	..	..	2	237
" Electro-	..	1	..	..	236
" Machinery	..	1	..	..	237
" & Min. Lab.	..	..	2	3	237
Ore Dressing	2	..	..	..	240
Ore Deposits (opt.)	..	3	..	..	226

VIII. Metallurgy.

This course is designed for students who intend to devote their attention mainly to the chemical side of Metallurgy with the intention of becoming analytical or consulting metallurgical chemists. The first two years are the same as in the Chemistry Course. In the Third and Fourth Years instruction is given in Analytical Chemistry and Assaying, Theoretical inorganic and Electro-Chemistry, Metallurgy, Mineralogy, Geology, and Ore-dressing. Certain options are offered in the Fourth Year.

The subjects of instruction and the number of hours per week devoted to each are as follows:—

FIRST YEAR.

As in other courses. For details, see pages 186 and 187.

* A laboratory period is three hours

SECOND YEAR.

As in Course II, Chemistry. For details, see page 189.

THIRD YEAR

SUBJECT	Lectures per week		Laboratory, etc., periods* per week		For details see page
	First Term	Second Term	First Term	Second Term	
§Assaying	½	..	2	..	235
§Chemistry	1	2	4	3	211
§Geology	2	2	⅓	⅓	225
Library	..	..	1	1	..
§Metallurgy	3	1	1	..	234
§Mineralogy	2	2	..	2	225
Ore Dressing	..	2	..	1	239
Engineer'g Economics.	..	2	..	..	..

After the Third Year there is a six weeks' field course in Geology and Metallurgy, beginning about the first of May.

FOURTH YEAR

SUBJECT	Lectures per week		Laboratory, etc., periods* per week		For details see page
	First Term	Second Term	First Term	Second Term	
Chemistry Analytical	1	1	3	..	212
" Electro-	..	2	..	1	212
" Industrial	2	..	..	..	212
Engineering Law	1	1	..	..	228
Metallurgy	4	4	..	..	236
" Colloquium	..	1	..	..	237
" Design	..	..	..	2	237
" Electro-	..	1	..	..	237
" & Min. Lab.	..	..	2	3	237
Ore Dressing	2	..	..	..	240
Ore Deposits (opt.)	..	3	..	..	226
Petrography (opt.)	1	..	..	1	226

* A laboratory period is three hours. § Major Subject.

IX. Mining Engineering.

I. The first two years of the undergraduate course in Mining Engineering are mainly devoted to Mathematics, Mechanics, Physics, Elementary Chemistry, etc., as it is deemed necessary that the students should master the general principles underlying scientific work before they attack the somewhat complex and specialized subjects of the professional course.

In the Third Year, elementary courses in both Mining and Metallurgy are given, and a thorough course in Fire Assaying, but again the chief work is in Applied Mechanics, Mechanical Engineering, Geology, Mineralogy and Chemistry.

The Fourth Year, on the other hand, is very largely given up to detailed work in Mining, Ore Dressing and Metallurgy, and, in addition to the lectures and demonstrations, two days per week are spent in the Mining and Metallurgical laboratories and the drawing room. During the Fourth Year each student is required to prepare a thesis giving the result of an individual experimental investigation.

In the Fourth Year, students who are interested in Metallurgical work can elect to take advanced work in that subject in place of Advanced Hydraulics.

The subjects of instruction and the number of hours per week devoted to each are as follows:—

FIRST AND SECOND YEARS.

As in other Engineering Courses. For details, see pages 186 and 187.

THIRD YEAR.

SUBJECT	Lectures per week		Laboratory, etc., periods* per week		For details see page
	First Term	Second Term	First Term	Second Term	
§Analyt. Mechanics...	2	..	..	..	214
§Assaying and Lab ...	..	..	1	1	235
§Chemistry and Lab..	1	..	2	..	211
§Geology.....	2	2	⅓	⅓	225
Mathematics (Diff. Equa.)		(opt.)			229
§Mech. Eng. & Lab...	2	2	1	1	232
Metallurgy	2	..	..	..	234
§Mineralogy & Lab....	2	2	..	2	225
§Mining.....	..	2	..	..	239
§Ore Dressing & Lab..	..	2	..	1	239
Engineer'g Economics	..	2	..	..	228
§Str. of Mat. & Lab.	2	2	1	..	214
Struct. Engineering .	..	1	..	1	215
Surveying & Mapping	2	..	1	..	246

Mining Field Work, beginning about May 1st, 1910.
Surveying Field Work, beginning September 6th, 1909.

FOURTH YEAR.

SUBJECT	Lectures per week		Laboratory, etc., periods* per week		For details see page
	First Term	Second Term	First Term	Second Term	
Chemistry & Lab.....	..	..	4	..	212
Elec. Eng. & Lab.....	2	2	1	1	223
Engineering Law.....	1	1	..	..	228
Geol. & Ore Deposits..	..	3	..		226
Geology & Petrography	3	1	..	1	226
Hydraulics	2	..	..	..	217
Hyd.-Elect Met. (Alt.)	..	1	..	..	237
Metallurgy	2	2	..	..	236
Mining	3	3	..	..	239
" Colloquium....	1	1	..	..	240
" Mach. & Desig	..	2	..	2	240
" & Met. Lab ..	..	..	2	3	240
Ore Dressing & Milling	3	..	..	..	240

*Laboratory period, 3 hours. §Major Subject.

X. Department of Railways.

The courses in the Department of Railways are designed for students who will enter:—

(1) The Operating Department or Executive Offices.
(2) The Mechanical Department.
(3) The Engineering Department.

The work of the First and Second Years is identical with that of the other courses in the Faculty of Applied Science; that of the Third and Fourth Years is shown below.

The Faculty reserves the right to reject any student who, in the opinion of the Head of the Department, cannot fulfil the requirements of the railways.

Students in the department will, so far as possible, enter the employ of a railway company, during the summer vacations, with the intention of continuing their connection with the company after graduation.

The subjects of instruction in each branch of the course, and the number of hours per week devoted to each are as follows:

OPERATING AND EXECUTIVE.

FIRST AND SECOND YEARS.

As in the other courses. For details, see pages 186 and 187.

THIRD YEAR.

SUBJECT.	Lectures per week		Laboratory, etc., periods* per week		For details see page
	First Term	Second Term	First Term	Second Term	
§Economics	2	2	..	..	249
§Engineering Law	1	1	..	..	228
§English	2	2	..	..	249
Freight Service	..	2	..	..	250
Mas'y and Foundations	1	..	1	..	215
Organization and Accounting	1	1	..	..	251
§Railway Engineering	2	2	2	2	250
§Rail'y Mech. Eng. & Lab	2	2	1	1	251
§Strength of Materials	2	2	..	1	214
Structural Engineering	..	1	..	1	215
Shorthand	2	2	..	..	251
Telegraphy	..	..	1	1	251

Surveying Field Work—4 weeks, beginning September 6th, 1909.
§Major Subject. *A Laboratory Period is three hours.

FOURTH YEAR.

SUBJECT	Lectures per week		Laboratory, etc., periods* per week		For details see page
	First Term	Second Term	First Term	Second Term	
Accounting	1	1	..	..	251
Economics	2	2	..	..	251
Elec. Eng. & Lab.	2	2	1	1	253
English	1	1	..	..	251
Freight Service	..	1	..	..	252
Operating	2	2	..	..	252
Passenger Service	..	1	..	..	253
Phy ical Geog. & Climat.	1	1	..	..	253
Railway Engineering	2	2	..	..	253
Railway Law	2	..	..	..	253
Railway Mech. Eng.	2	2	1	1	253
Signals	1	1	1	1	252
Shorthand	2	2	..	..	254
Telegraphy	..	..	1	1	254

MECHANICAL ENGINEERING DEPARTMENT.

The work of the First, Second and Third Years will follow that outlined for Mechanical Engineering students (page 197). During the Fourth Year opportunity will be given for specializing in locomotive construction and operation.

CIVIL ENGINEERING DEPARTMENT.

Students in this course will follow that outlined for Civil Engineering students (page 193) and, in addition, will be required to engage in practical work during the vacations under the supervision of the Department of Railways.

COURSES OF LE

N.B.—The following courses are subject to such modifications during the year as the Faculty may deem advisable.

I. Architecture.

The course in Architecture is now being revised. A pamphlet embodying the changes will be issuel in the course of the summer.

PROFESSOR:—PERCY E. NOBBS, M.A. (Edin.), A.R.I.B.A., A.R.C.A.

ASSISTANTS:—CECIL E. BURGESS, A.R.I.B.A.
PHILLIP TURNER, F.R.I.B.A.
E. S. S. MATTICE, B.A.Sc.
MARCEL BEULLAC, B.Sc.

DEMONSTRATOR:— _____

The work of the First Year, which includes Mathematics, English, French, and Physics, with the First Year, and History with the Third Year in the Arts Faculty, and Drawing in the Applied Science Faculty, is fully detailed under the head of each of these subjects. During the last three years the courses of study for architectural students are as follows:—

1. *History of Architecture* (Ancient, 3000 B.C. to 600 A.D.). SECOND YEAR. First Term.) Egypt, Assyria, Babylonia, Greece. (Second Term.) Rome, Pompeii, the Early Christian and Byzantine periods. Mr. Burgess.
Text Books:—"A History of Architecture," by Banister Fletcher (Batsford); Anderson and Spiers, "Architecture of Greece and Rome" (Batsford).

2. *History of Architecture.* (Mediæval, 600 A.D. to 1500 A.D.) THIRD AND FOURTH YEARS together (alternately.) (First Term.) The Romanesque Period in Europe; the Gothic Periods in England. (Second Term.) The Gothic Periods in France and Europe generally. Mr. Burgess.

Text Books:—Banister Fletcher, "A History of Architecture" (Batsford); Prior, "History of Gothic Art in England (Bell); Moore, "Gothic Architecture" (Macmillan); Bond, "Gothic Architecture" (Bell).

3. *History of Architecture.* (Renaissance, 1400 to 1800.) THIRD AND FOURTH YEARS together (alternately). (First Term.) The Renaissance in Italy. (Second Term.) The late Renaissance in France and England. Mr. Burgess.

Text Books:—Banister Fletcher, "A History of Architecture" (Batsford); Anderson, "Renaissance Architecture in Italy" (Batsford); Blomfield, "Short History of Renaissance Architecture in England" (Bell).

4. *Elements of Architecture.* SECOND YEAR. (First Term.) Analysis of trabeated forms; analysis of arcuated forms. (Second Term.) Vaulting and stereotomy; elements of composition, proportion, etc. Mr. Nobbs.

5. *Theory of Design.* THIRD YEAR. (First Term.) The material logic of design and ornament. The moral logic of decoration. (Second Term.) Theory of æsthetics generally; theory of form, theory of colour.

6. *Ornament and Decoration.* SECOND AND THIRD YEARS together, in alternate years.

A. (First Term.) Wrought iron work; cast iron and bronze; beaten metal work. (Second Term.) The juxtaposition of coloured materials; stained glass; mosaic; the use of marble; inlay, etc.

B. (First Term.) Heraldry:—Rules, parts, theory, ancient and modern practice. (Second Term.) Stone carving; wood carving; terra cotta work; plaster work; furniture. Mr. Nobbs.

7. *Theory of Planning.* FOURTH YEAR. (First Term.) *Domestic Art.*—Cottages, workmen's dwellings; tenements; detached houses, and country houses. (Second Term.) *Public buildings.*—hospitals; libraries; baths; schools; fire stations; churches, and public buildings. Mr. Nobbs.

8. *Modern Architecture.* (1800-1900.) FOURTH YEAR. (First Term.) The Gothic Revival; the Schools of Ruskin and Morris; the Free Classic School; modern tendencies. (Second Term.) The Official Architecture of Europe; the Academic movement in America; Civic Art; Canadian problems. Mr. Nobbs.

Courses 7 and 8 are complementary to one another.

9. *Building Construction.* SECOND YEAR. (First Term.) Masonry; concrete; brickwork; carpentry for floors and roofs. (Second Term.) Joinery for doors, casement and sash windows, stairs, etc. Mr. Turner.

Reference Books:—Rivington, "Building Construction"; Kidder, "Building Construction and Superintendence"; Clark, "Building Superintendence"; Martin, "Details of Building Construction"; Chandler, "Construction Details"; Mitchell, "Plates of Building Construction."

10. *Structural Engineering.* Courses of lectures will be given in this subject continuing the structural aspect of the Art of Building commenced in the Second Year "Building Construction" class.

Third Year. (First Term.) Materials, foundation, piers, arches, retaining walls, framed timber, roofs and floors.

(Second Term.) Iron roof trusses, steel frame buildings, and fire-proof construction. Mr. Beullac.

The Drawing period in connection with this course will be devoted to the designing of lumber-framed trusses and joints in iron-work. Mr. Mattice.

Reference Books: — Baker, "Masonry Construction"; Rivington, Building Construction."

Fourth Year. Special designs will be prepared for iron roofs and steel frame structures. Mr. Mattice.

Reference Books: — Baker, "High Office Buildings"; Greene, "Roofs and Bridges"; Merriman, "Theory of Structures"; Bovey, "Theory of Structures and Strength of Materials."

11. *Hygiene.* THIRD YEAR. (First Term.) Light and air, water, sanitary plumbing. Drain plans will be prepared. Dr. Starkey (Faculty of Medicine.) (Second Term.) Heating and ventilation. A Heating plan will be prepared. Mr. McKergow (Department of Mechanical Engineering.)

Reference Books: — Lister Sutcliffe, "Modern House Construction"; Stevenson and Murphy, "Public Health"; Carpenter, "Heating and Ventilating of Buildings."

12. *Professional Practice.* FOURTH YEAR. (First Term.) Conditions of contract; specifications; bills of quantities. (Second Term.) Building by-laws; architectural jurisprudence. Mr. Beullac. Mr. Turner.

2. Chemistry.

PROFESSOR:—J. WALLACE WALKER, M.A., PH.D.

ASSOCIATE PROFESSORS:— NEVIL NORTON EVANS, M.A. Sc.; DOUGLAS MCINTOSH, A.M., D.Sc.

LECTURER:— F. M. G. JOHNSON, Ph.D.

DEMONSTRATORS:— A. F. ROBERTSON, M.Sc.; VERNON R. KRIEBLE, B.Sc.; ALBERT O. HAYES, B.Sc.

PROFESSOR OF ORGANIC AND BIOLOGICAL CHEMISTRY (Faculty of Medicine):—R. F. RUTTAN, B.A., M.D.

SECOND YEAR.

51. Students in all the courses of Applied Science are required to take up the study of Chemistry in the Second Year, having previously acquired a knowledge of some branches of Physics in the First Year of their course. They attend a course of lectures, supplemented by tutorial classes, on the laws of chemical combination, chemical formulæ and equations, the preparation and properties of the more important elements and their compounds, etc. They must also devote at least one morning or afternoon a week, throughout the session, to practical work in the laboratory, where they learn the construction and use of ordinary apparatus, and perform a series of experiments designed to cultivate the powers of observation and deduction. Many of the experiments in-

volve accurate weighing, and for this purpose the elementary laboratory is well supplied with balances. During the second term considerable attention is also devoted to the subject of Qualitative Analysis.

Text-book:—Holleman's Inorganic Chemistry.

Students in the Chemistry Course must do in addition a large number of preparations of the ordinary inorganic compounds during the first term, and a complete course of Qualitative Analysis during the second. They must also attend a tutorial class explanatory of the laboratory work.

Text-book:—A. A. Noyes' Qualitative Chemical Analysis.

THIRD YEAR LECTURES.

52. *Organic Chemistry.*—Two lectures a week during the first term.

Text Book:—Holleman's Organic Chemistry, or Remsen's Organic Chemistry.

53. *Physical Chemistry.*—Two lectures a week during the second term will be given on vapour densities, molecular weights, the mass law and the phase rule.

Text Book:—Walker's Introduction to Physical Chemistry.

54. *Inorganic Qualitative Analysis.*—A course explanatory of the work done in the laboratory. One lecture a week during the first term.

Text Book:—A. A. Noyes' Qualitative Chemical Analysis.

55. *Inorganic Quantitative Analysis.*—A course explanatory of the work done in the laboratory. One hour a week during the first term.

LABORATORY.

56. *Organic Chemistry.*—A course on the preparation, detection and analysis of the commonest organic compounds.

Text Book:—Holleman's Laboratory Manual of Organic Chemistry.

57. *Inorganic Qualitative Analysis.*—A complete course.

58. *Inorganic Quantitative Analysis.*—An extensive course on gravimetric and volumetric methods, including gas analysis.

Text Book:—Talbot's Quantitative Analysis.

59. *Inorganic Quantitative Analysis.*—A short course for students of Electrical Engineering.

Students in the Chemistry courses will omit (54), (57) and (59).

Students of Electrical Engineering take only (59).

Students of Metallurgy take (54), (55), (57) and (58).

Students of Mining take only (54) and (57).

FOURTH YEAR LECTURES.

60. *Organic Chemistry.*—A systematic course. Two lectures a week.

61. *Physical Chemistry.*—The lectures are a continuation of those given during the Third Year and include the kinetic theory, thermo-chemistry, the principles of thermodynamics as applied to chemical action, osmotic phenomena and their application in deducing the ionisation theory of solutions, a study of such physical properties of gases, liquids and solids as are known to depend on their chemical constitution, and Electro-Chemistry. Two lectures a week.

Books of Reference:—Ramsay's Text Books of Physical Chemistry.

62. *Inorganic Quantitative Analysis.*—A course on Mineral Analysis and on the composition and analysis of iron and steel. One lecture a week.

63. *Industrial Chemistry.* —- An extensive course on the leading chemical industries. Two lectures a week.

64. *Applied Electro-chemistry.*—Two lectures a week during the second term.

LABORATORY.

Laboratory work in the Fourth Year will be arranged to suit the requirements of students. Those intending to prosecute organic work will take up a complete course of organic preparations and analysis, but they must also spend some time on the essential physico-chemical methods; while students of Physical Chemistry must spend enough time in the organic laboratory to become familiar with the chief methods of organic work. Those intending to devote themselves to

Mineral Chemistry will omit the Organic Chemistry, but must study the more important physico-chemical methods.

Laboratory courses will also be provided for students who wish to make a speciality of any particular branch of Industrial Chemistry such as chemistry of oils, iron and steel analysis, bleaching, paper-making and manufacture of substances by electro-chemical and other methods.

3. Civil Engineering and Applied Mechanics.

PROFESSOR:—H. M. MACKAY, B.A., B.Sc.
ASSOCIATE PROFESSOR:—E. BROWN, M.Sc., M. ENG.
LECTURERS:— C. BATHO, M.Sc.; W. S. LEA, B.Sc.; H. M. LAMB, B.Sc.
DEMONSTRATOR:—G. MC.L. PITTS, B. Sc.

101. *Materials of Construction.*—Manufacture and properties of cast iron, wrought iron, crucible, bessemer and open hearth steel; principal alloys; considerations governing selection of materials; manufacture and properties of Portland and natural cements; limes; concrete; stone and brick masonry; principal kinds of timber used for engineering purposes; preservation of timber. Discussion of standard specifications.

Required of all Engineering students in the Second Year.

One hour per week. Professor MacKay.

102. *Graphical Statics.* — Composition of forces; general methods involving the use of funicular and force polygons; determination of reactions, centres of gravity, bending moments and moments of resistance; stresses in cranes, braced towers, roof trusses and bridge trusses.

Required of all Engineering students.

Three hours per week, second term of Second Year. Mr. Lamb, Mr. Lea, Mr. Pitts.

103. *Mechanics.*—The course treats of the general principles of statics, the laws of motion and dynamics of a particle. Cases of motion under varying force are treated, and a knowledge of differential and integral calculus is essential. Students taking the course must attend the Second Year mathematics

course in the calculus. They must also have taken First Year dynamics (see mathematics courses) or be otherwise qualified.

Three lectures per week, second term of Second Year. Mr. Brown and Mr. Batho.

Text-Book:—Jeans, Theoretical Mechanics.

104. *Mechanics.*—The work of the Second Year course in mechanics is extended, and the dynamical equations for the motion of a rigid body in two dimensions are deduced. Numerous examples are worked in detail, including problems on flywheels, kinetic energy of bodies having translation and rotation, oscillation of a rigid body about fixed axis of suspension, impulsive forces, etc. The elementary principles of hydrostatics are also considered.

Two lectures per week, first term of Third Year.

Mr. Brown, Dr. Eve and Mr. Batho.

Text Book:—Jeans, Theoretical Mechanics.

105. *Strength of Materials.*—This course deals with the fundamental principles of the strength of materials. It includes the following:—Stress, strain, resilience, and the elastic properties of materials used in construction; bending moment and shearing force diagrams; strength, curvature and deflection of beams; continuous beams, cantilever beams, and the like; simple problems on rolling loads; the strength of shafting; spiral springs; bending combined with tension or compression; elementary consideration of compound stresses; distribution of shearing stress on various sections, etc.

Required of all Engineering students.

Two lectures per week during session, Third Year.

Mr. Brown and Mr. Batho.

106. *Strength of Materials Laboratory.*—The work is arranged to illustrate the principles of the lecture course in strength of materials (105), and includes the following:—Tension tests of various materials in 100 ton and 30 ton testing machines; determination of stress-strain diagrams by automatic recorders and by extensometers and scales; deflection of beams, wood and metal; torsion of shafts within elastic

limit, and subsequent twisting to destruction; deflection and vibration of spiral springs, and torsional oscillations of wires; the moment of inertia of flywheels by oscillation and falling weight tests; determination of Young's modulus for various materials in small testing machines; complete tests of Portland cement; the friction of belts; efficiency of chain blocks; experiments on tension and twisting of wires; bending combined with torsion as in shafting; together with demonstrations on the large testing machines of tensile tests of various materials, the breaking of beams and small columns, the compressive strength of concretes bricks, mortars, etc.

Students must be in attendance on Strength of Materials, Course 105, or be otherwise qualified, in order to take the laboratory course.

Three hours per week, second term of Third Year.

Mr. Brown and assistant staff.

107. *Foundations and Masonry.*—Borings; bearing power of soils; piles and pile driving; concrete piles; footings; grillages; underpinning; foundations under water; coffer dam, open dredging, pneumatic and freezing processes; estimation of quantities from drawings; estimates of cost.

Strength of Materials (105) must be taken concurrently, or the student must have equivalent preparation.

Required of students in Courses IV and X.

Four hours per week, first term of Third Year.

Professor MacKay, Mr. Lamb.

Reference Books:—Baker's Masonry Construction; Fowler's Ordinary Foundations.

108. *Structural Engineering.* — Problems in the design of beams, plate girders, columns, roof trusses, knee bracing, etc.; working drawings; reinforced concrete; estimates of quantities; estimates of cost.

Required of students in Courses III, IV, VI, VII, IX and X.

Four hours per week, second term of Third Year.

Mr. Lamb and Mr. Pitts.

Reference Books:—Ketchum's Mill Building Construction; Freitag's Architectural Engineering; Cambria Steel.

109. *Theory of Structures.*—(With Strength of Materials).—This course for Fourth Year students includes some more advanced work on strength of materials than that covered in the Third Year course in that subject, but deals principally with the application of graphical and analytical methods to the determination of the stresses in framed structures generally, such as bridge and roof trusses; two-hinged and three-hinged braced arches; the stresses in an arch rib with ends hinged and with ends fixed; general problems in deflection of beams and trusses; concentrated loading on continuous spans, and its application to swing bridges; earthwork theories and their application to retaining walls; suspension bridges, etc.

Required of Civil Engineering students in the Fourth Year.

Three hours per week.

Professor MacKay, Mr. Brown.

Reference Books:—Merriman and Jacoby,—Roofs and Bridges; Bovey, Theory of Structures.

110. *Strength of Materials Laboratory.*—Civil Engineering students will take a special course of instruction bearing on some branch of structural work. During the session 1909-10, tests of concrete, plain and reinforced, will be carried out, and instruction given in the analysis of the stresses in reinforced beams.

Three hours per week, second term.

Mr. Brown and assistant staff.

111. *Graphical Statics.*—Problems in the analysis of framed structures, arches and retaining walls, etc., determination of deflections in beams and trusses. Must be taken concurrently with Course 109.

Required of Fourth Year students in Civil Engineering.

Three hours per week.

Professor MacKay, Mr. Pitts.

112. *Bridge Design.*—The reasons governing the selection of a particular type of bridge; discussion of the loads to which

the bridge will be subjected; calculation of the stresses in the several members; determination of the sectional areas and forms of the members; design of the connections; preparation of complete drawings.

Required of Fourth Year students in Civil Engineering.

Eight hours per week.

Professor MacKay, Mr. Lamb, Mr. Pitts.

Text Books:—Merriman and Jacoby's Roofs and Bridges; Bovey's Theory of Structures; Burr and Falk's Design of Metallic Bridges; Ketchum's Highway Bridges; Thomson's Typical Steel Railway Bridges; Waddell's De Pontibus.

113. *Hydraulics.*—The course deals with the fundamental principles of hydraulics and includes a discussion of the theory of the following subjects, together with numerous examples in illustration:—Discharge from orifices; hydraulic coefficients; flow through large orifices, free or submerged; discharge of notches and weirs; the flow in pipes, and open channels; the pressure exerted by a jet impinging on a fixed or moving surface, the efficiency of such jets, and the application of the principles considered to problems on turbines. Required of all Engineering students in the Fourth Year.

Two hours per week, first term.

Mr. Brown.

Text Book:—Bovey's Hydraulics.

114. *Hydraulic Laboratory.*—The course is arranged to illustrate the work in Hydraulics (lecture course 113). It includes the measurement of the discharge of orifices and notches under varying conditions, and a determination of discharge coefficients; measurement of the pressure exerted by a jet impinging on vanes of various forms and the efficiency of the impact; experiments on the loss of head by surface friction, and at bends in pipes; measurement of flow through a Venturi meter; tests of a hydraulic ram; together with efficiency tests of Pelton wheel, Brotherhood three cylinder reciprocating motor, Girard impulse turbine, Thomson reaction turbine, etc., under varying conditions. Students taking this course must

be in attendance on Hydraulics, Course 113, or be otherwise qualified. Required of students of the Fourth Year in Courses IV, V and VI.

Three hours per week, first term.

Mr. Brown and assistant staff.

Hydraulics.—The theory of turbines and centrifugal pumps. Various types of turbines and pumps are considered, the hydraulic principles underlying their construction and design are explained, and numerical examples worked, illustrating the methods of obtaining the general proportions of wheels, vane angles, etc., for required conditions.

One hour per week, second term.

Mr. Brown.

Text Book:—Bovey's Hydraulics.

116. *Hydraulic Machinery.*—The hydraulic and mechanical principles involved in various types of hydraulic machinery. The course includes the following:—High pressure and low pressure water power systems; hydraulic accumulators and intensifiers and their functions on a supply system; calculations on accumulator capacity on a supply system; the inertia forces acting in the case of machines with reciprocating motion driven by water under pressure, and the application of the results to the case of pumps, motors, riveters, etc.; consideration of the conditions affecting available kinetic energy at the nozzle of an impulse turbine, such as the Pelton wheel; form of vanes of such a wheel, and methods of regulation; the general question of power regulation of turbines with examples of various methods; hydraulic cranes, elevators, brakes, riveters, etc.

Students attending this course must have taken Hydraulics, Courses 113 and 114, or be otherwise qualified.

One hour per week, second term.

Mr. Brown.

117. *Municipal Engineering.*

(*a*) *Sewerage of Cities and Towns.*—The various systems for the removal of sewage; special methods in use for its

treatment and ultimate disposal; the proportioning and construction of main, branch and intercepting sewers; inverted syphons and submerged outlets; manholes, flush tanks, catch basins, storm water overflows, etc.; field and office work in connection with preliminary surveys, design, estimates of cost, construction, record plans and management; materials used in construction.

(*b*) *Roads and Pavements.*—Methods of construction; cost; durability and desirability of the various kinds of pavements; grades and cross sections; methods of assessment of costs; methods of maintenance and cleaning.

Required of Civil Engineering students in the Third Year.

One hour per week. Mr. Lea.

118. *Water Supply.*—The quantity and quality of water; rainfall and evaporation; storage as related to the supplying capacity of watersheds; combined and separate fire and domestic systems with reference to their requirements as factors in the selection of sources of supply; works for the collection, storage and carriage of water to the point of distribution; natural and artificial purification; the distribution system with location of mains, hydrants, valves, blow-offs, etc.; field and office work in connection with design, estimates of cost, construction, record plans and management.

Required of Civil Engineering students in the Fourth Year.

Two hours per week, second term. Mr. Lea.

119. *Advanced Courses.*—Provision will be made if a sufficient number of properly prepared students present themselves for more advanced courses of lectures as follows: (A) The elastic theory of the arch, and the complete design of reinforced concrete arches; (B) The computation of statically indeterminate and secondary stresses in framed structures.

4. Descriptive Geometry.

LECTURERS:—{C. H. McLEOD, MA.E. / H. F. ARMSTRONG. / J. B. HARVEY, M.Sc.

This course deals with the methods of representing objects on one plane so that their true dimensions may be accurately scaled. It discusses the methods employed in the graphical solution of the various problems arising in engineering design, and deals generally with the principles underlying all constructive drawing. The methods taught are illustrated by applications to practical problems. It is the aim of the work to develop the imagination in respect to the power of mentally picturing unseen objects, and, incidentally, precision in the use of the drawing instruments is attained.

151. FIRST YEAR. — Geometrical drawing; problems on straight line and plane; projections of plane and solid figures; curved surfaces and tangent planes; intersections of surfaces; axometric projections; shades and shadows. Mr. Amstrong.

Text Books: — Geometrical Drawing by C. H. McLeod; McLeod's Elementary Descriptive Geometry.

152. THIRD YEAR.—Mathematical perspective and perspective of shadows, etc.; photographic surveying; graphical determination of spherical triangles; spherical projections and the construction of maps. Mr. Harvey.

5. Electrical Engineering.

PROFESSOR :—L. A. HERDT, E.E., Ma.E.

ASSISTANT PROFESSORS :—{C. V. CHRISTIE, B.Sc., M.A. / ————————

LECTURER :—STUART McCUAIG, B.Sc.

SENIOR DEMONSTRATOR :—E. GODFREY BURR, B.Sc.

DEMONSTRATOR :————————

201. *Continuous Currents and Commutating Machinery.*— The theoretical consideration of continuous current flow in circuits of different kinds; the laws of electro-magnetism and of the magnetic circuit; the action and principles of design of

commutating and rectifying machinery. Required of students in Electrical Engineering.

Two hours per week. First and second terms.

Text Books:—Magnetic Induction of Iron and other Metals, J. A. Ewing; Dynamo Electric Machinery, S. P. Thompson.

202. *Alternating Currents and Alternating Current Machinery.*—The theoretical consideration of variable current flow in circuits containing resistance, inductance and capacity under different conditions; the action and principles of design of synchronous and induction machinery. Required of students in Electrical Engineering. Must be preceded by course 201.

Three hours per week Prof. Herdt. First and second terms.

Text Books:—Theoretical Elements of Electrical Engineering, C. P. Steinmetz; Alternating Current Motors, McAllister.

203. *Electric Lighting and Power Distribution.*—The Design and operation of central and isolated lighting and power plants; the design and construction of distributing lines; arc and incandescent lighting; the appliances of stationary motors to general power purposes. Required of students in Electrical Engineering. Must be preceded by course 201.

Three hours per week. Mr. C. V. Christie. First term.

Text Books:—Electric Lighting, F. B. Croker; Standard Handbook for Electrical Engineers.

204. *Electric Traction.*—Determination of the power required to accelerate and draw, at different speeds, loads under varying track and other conditions; car equipment as affected by nature of service; track construction; systems of distribution for urban and for heavy through traffic conditions. Required of students in Electrical Engineering. Must be preceded by course 201.

Three hours per week.—Mr. C. V. Christie. Second term.

Text Books:—Standard Handbook for Electrical Engineers. Students are furnished with supplementary notes.

205. *Electrical Designing.*—Detailed electric and magnetic calculations and complete drawings for a commutating ma-

chine, a synchronous machine and a transformer or an induction motor. Required of students in Electrical Engineering. Must be preceded by course 201 and taken in conjunction with course 202.

Three hours per week.—Mr. Christie. Second term.

Text Books: — Hobart, Design of Continuous Current Machinery. Supplemented by MS. notes and data.

Electrical Engineering Laboratory.

206. Includes such tests of direct current metering and controlling devices, dynamos, motors, boosters, motor generators, dynamotors, converters, open and closed coil, constant current machines and arc and incandescent lamps as illustrate the principles of their action and the limits of their proper use; also complete test of direct current isolated or central lighting or power plant. Required of students in Electrical Engineering. Must be taken in conjunction with or preceded by course 201.

Six hours per week.—Prof. Herdt, Mr. Christie, Mr. McCuaig. First and second terms.

Text Books:—Testing of Dynamos and Motors, Chas. F. Smith. In addition, students are furnished with special laboratory notes and forms.

207. Includes experiments on variable current flow in circuits of different kinds; tests of alternators, synchronous motors and converters, compensators, induction motors, transformers, frequency and phase changing apparatus, potential regulators, reaction coils, etc., and complete test of alternating or lighting or power plant. Required of students in Electrical Engineering. Must be preceded by course 201, and taken in conjunction with course 202.

Nine hours per week.—Prof. Herdt, Mr. Christie, Mr. McCuaig. First and second terms.

Text Book:—Practical Alternating Current Testing, Chas. F. Smith. Students are also furnished with special laboratory notes and forms.

208. *Elements of Electrical Engineering* for Third Year students in Mechanical Engineering and Fourth Year students in Civil and Mining Engineering and Transportation.

A general course in Electrical Engineering, treating of the laws of electro-magnetism; continuous and alternating current flow in various circuits; characteristics of direct and alternating current machinery; the fundamental principles of electric lighting and power distribution.

Two hours per week.—First and second terms.

Text Books:—Elements of Electrical Engineering, Franklin and Esty.

209. *Electrical Engineering Laboratory* for Third Year students in Mechanical Engineering and Fourth Year students in Civil and Mining Engineering and Transportation.

Includes tests of direct current metering and controlling devices, dynamos, motors, boosters, motor generators and constant current machines; experiments on variable current flow in circuits of different kinds; tests of alternators, synchronous motors and converters, induction motors and transformers.

Three hours per week (one-half class).—First and second terms.

Text Books:—Testing of Dynamos and Motors, Chas. F. Smith; Practical Alternating Current Testing, Chas. F. Smith.

6. English Composition.

LECTURER:—G. W. LATHAM, B.A.

226. In view of the importance of accuracy of expression in the case of those engaged in scientific or professional work, a course on English Composition is prescribed for all undergraduates of the First Year. Students who give evidence of having already reached the required standard of proficiency, by passing a special exemption examination, may be excused from attendance on this course. This special examination will be held in the Molson Hall on Friday, October 1st, at 11 o'clock.

Students who are required to take this course will be assigned to a section which will meet weekly for practice and instruction in composition. The handbook used is the latest edition (1906) of Carpenter's Rhetoric and English Composition (Macmillan Co.), and every member of the class is required to provide himself with a copy.

Satisfactory results in class and essay work must be obtained before entry into the Second Year. All undergraduates of the First Year, whether exempt or not from attendance on the course, must pass the final examination.

227. *Summer Reading.*—During the vacation, undergraduates entering the Second Year will study Shakspere's Henry IV, Parts 1 and 2, and will be examined thereon at the beginning of their second session. The marks obtained in this examination will be reckoned in determining the relative standing at the sessional examinations at the end of the Second Year.

French students may substitute for the above the following:—

Corneille—Le Cid, Horace; V. Hugo—Hernani, Ruy Blas; Balzac—Eugenie Grandet.

Students will also be required to possess some knowledge of the lives of the above French authors.

Students who have already taken equivalent courses in this, or in any other university, may be exempted from the work prescribed for Summer Reading, on written application to the Dean. All others must pass the examination.

In 1909 this examination will be held on Thursday, September 30th, at 9 a.m., in the Molson Hall.

7. Freehand Drawing, Lettering, etc.

ASSISTANT PROFESSOR:—H. F. ARMSTRONG.

155. In the *Freehand Course,* the object is to train the hand and eye so that students may readily make sketches from parts of machinery, etc., either as note book sketches, diagrams, per-

spective drawings in light and shade, or as preparatory dimensioned sketches from which to make scale drawings.

156. In the *Lettering Course,* plain block alphabets, round writing, and titles, such as are chiefly in use in draughting offices, will be dealt with. In this course, also, tinting, tracing, blue printing and simple map drawing will be included.

8. Geology and Mineralogy

PROFESSOR:—F. D. ADAMS, PH.D., D.Sc., F.R.S.

LECTURER:—J. AUSTEN BANCROFT, M.A.
R. P. D. GRAHAM, B.A., M.Sc.

SESSIONAL LECTURERS: JOHN A. DRESSER, M.A.
ALFRED BARLOW, M.A., D.Sc.

The courses are arranged as follows:—

Third Year.

251. *General Geology.*—The lectures will embrace a general survey of the whole field of Geology, and will be introduced by a short course on Mineralogy. Especial attention will be devoted to Dynamical Geology and to Historical Geology, including a description of the fauna and flora of the earth during the successive periods of its past history, as well as to the economic aspects of the subject.

The lectures will be illustrated by the extensive collections in the Peter Redpath Museum, as well as by models, maps, sections and lantern slides. In addition to the lectures there will be a demonstration each week.

Text Book:—Scott, An Introduction to Geology.

252. *Mineralogy.*—The lectures and demonstrations, illustrated by specimens and models, deal mainly with the description and means of identification of species, special attention being paid to the ores and economic minerals and to those which are important as rock constituents. The earlier lectures are devoted to a brief dis-

cussion of the geometrical and physical properties of minerals; their chemical composition; calculation of formulæ, etc.; and the principles of classification.

253. *Determinative Mineralogy.* — Laboratory practice in blow-pipe analysis and its application to the determination of mineral species.

Fourth Year.

254. *Petrography.*—The modern methods of study employed in Petrography are first described, and the classification and description of rocks is then taken up.

In addition to the lectures, one afternoon a week during the second term will be devoted to practical work in the Petrographical Laboratory.

Text Book:—Harker, Petrology for Students.

255. *Petrographical Laboratory.*—See page 327. This laboratory is open to Fourth Year Mining students during the second term.

256. *Ore Deposits and Economic Geology.*—The nature, mode of occurrence and classification of ore deposits will first be taken up. A series of typical occurrences will then be described and their origin discussed. The more important non-metallic materials, *e.g.*, fuels, clays, abasive materials, building stones, etc., will be similarly treated as well as questions of water supply, artesian wells, etc.

The course will be illustrated by maps, models, lantern slides and specimens.

Text Books: — Geikie, Outlines of Field Geology; Kemp, Ore Deposits of the United States and Canada; Phillips and Louis, A Treatise on Ore Deposits.

Books of Reference:—The Reports of the Geological Survey of Canada, and the Monographs of the U. S. Geological Survey.

257. *Practical Geology.*—This course, consisting of 24 lectures, is a continuation of the general geology of the Third Year and commences with the consideration of the structural features of the earth's crust, resulting from sedimentation, folding, faulting, the various phases of igneous intrusion, etc., with special reference to engineering problems. A discussion of the methods employed in carrying out geological and magnetic surveys, and in the construction of geological maps and sections, as well as the interpretation of these, is then taken up.

258. *Canadian Geology.*—A general description of the Geology and mineral resources of the Dominion.

259. *Physical Geography and Climatology.*—Geographical subdivisions of Canada; mineral areas; timber belts; wheat areas and water powers; irrigation; climatology and its relations to occupations and soil products.

This is a special course provided for the Fourth Year students in the Department of Railways. It will be illustrated by maps, models and lantern slides.

260. *Crystallography.*—A short course of lectures for students in Chemistry, with laboratory practice in the measurement and drawing of crystals; calculation of axial ratios, etc.; use of the polarising microscope, axial angle apparatus, etc.

261. *Field Work.*—The students in mining will receive a course of instruction in geological mapping and field work—extending over one week—in connection with the summer school of mining.

NOTE.—Students of the Mining and Chemistry courses take all the Mineralogy of the Third Year. Chemistry students, in addition to the Geology of the Third Year, may take the Mineralogy of the Fourth Year.

9. Law and Business.

PROFESSOR OF LAW:—F. P. WALTON, B.A., LL.B., LL.D.
HONORARY LECTURER IN ENGINEERING ECONOMICS:—
ROBERT A. ROSS, ESQ.

526. *Engineering Law.*—This course is intended to present such an outline of the law as will be useful to engineers and business men. Among the main topics may be mentioned the general law of contracts; commercial paper; sale; lease; agency and partnership; joint stock companies; insurance; and carriers by land and sea.

527. *Railway Law.*—(See page 253.)

528. *Engineering Economics.*—This course is intended to familiarise the Engineering student with the business aspect of his profession. With this in view, lectures will be given on the subjects of barter and sale; money and credit; the formation, organization and financing of companies; analysis of balance sheet; operating and fixed charges; estimates; specifications and contracts.

10. Mathematics.

PROFESSOR:—D. A. MURRAY, PH.D.

ASSOCIATE PROFESSOR:—A. S. EVE, M.A., D.Sc.

ASSISTANT PROFESSOR:—T. RIDLER DAVIES, B.A.

LECTURERS:—C. BATHO, M.Sc.
CHARLES T. SULLIVAN, B.A.
J. N. FINLAYSON, M.Sc.

The work in this department is conducted from the outset with special reference to the needs of students of applied science. Much time is given to practice in the use of mathematical tables, particular attention being paid to the tracing of curves, graphical illustrations and solutions, methods of computing, approximations, etc.

The courses of study are as follows:—

301. *Geometry.*—Exercises in Plane Geometry, including loci, transversals, etc., elements of Solid Geometry and of

Geometrical Conic Sections. First Year (first term). Text Book:—Wilson's Solid Geometry and Conic Sections (Macmillan).

302. *Algebra.*—Miscellaneous theorems and exercises, exponential and other series, properties and solution of higher equations, complex numbers and vector algebra, graphical algebra with an introduction to Analytic Geometry. First Year (first and second terms). Text Books:—Wentworth's College Algebra (Ginn & Co.), Tanner and Allen's Analytic Geometry (American Book Co.).

303. *Trigonometry.*—Plane and Spherical. First Year (second term). Text Book:—Murray's Plane and Spherical Trigonometry with Tables (Longmans).

304. *Analytic Geometry.*—The point, straight line, circle, parabola, ellipse and hyperbola, elements of geometry of three dimensions. First Year (latter part of second term), and Second Year (first term). The Second Year work begins with the circle. Text Book:—Tanner and Allen's Analytic Geometry (American Book Co.).

305. *Calculus.*—Differentiation of functions of one or more variables, successive differentiation, tangents, etc., multiple points, asymptotes, curvature, maxima and minima, integration, with applications to areas, volumes, moments of inertia, etc. Second Year (first and second terms). Text Book:—Murray's Differential and Integral Calculus (Longmans).

306. *Calculus.*—Various applications, elementary differential equations. Prescribed for Electrical Engineering students of the Third Year; optional for all others.

307. *Mechanics.*—An elementary course in dynamics, statics, and hydrostatics. First Year (first and second terms). Text Book:—Loney's Mechanics and Hydrostatics for Beginners (Cambridge University Press).

103-4. *Mechanics.*—For courses in Second and Third Year Mechanics, see CIVIL ENGINEERING and APPLIED MECHANICS, pages 213 and 214.

11. Mechanical Engineering.

PROFESSOR:—R. J. DURLEY, B.Sc., MA.E.

ASSISTANT PROFESSORS:—C. M. McKERGOW, M.Sc.; _____

LECTURERS:—A. R. ROBERTS, M.Sc.; J. BLIZARD, B.Sc.; C. J. CHAPLIN, M.Sc.

DEMONSTRATORS:— _____; _____

DRAUGHTSMAN:—

351. *Mechanics of Machines.*—Second Year.—Three hours per week. Required of all Engineering students.

Kinematics of Machines.—Constrained motion; kinematic pairing; velocity and acceleration in mechanisms; centrodes; analysis and classification of simple mechanisms, including the quadric crank chain, the slider crank chain and various wheel trains; design of involute wheel-teeth.

Dynamics of Machines.—Work and power; the power and turning effort of prime movers; inertia and kinetic energy of revolving and reciprocating parts of machines.

Text Book:—Durley's Kinematics of Machines (Wiley).

352. Third Year.—Two hours per week. Required of students in Mechanical and Electrical Engineering.

Mechanisms involving chamber crank trains and chamber wheel trains; helical, skew, and worm gearing; relative motion and displacement; the mechanism of the simple slide valve and of expansion valves; solution of valve setting problems; the function and dynamics of engine fly-wheels and governors; elements of engine balancing; friction and lubrication.

Text Books:—Durley's Kinematics of Machines (Wiley); Ewing's Steam Engine (Camb. Univ. Press).

353. Fourth Year.—Two hours per week. Required of students in Mechanical Engineering.

Gyrostatic action in machines; further treatment of engine governors; primary and secondary balancing of engines; knocking and shocks in reciprocating machinery; vibration; valve gears.

Reference Books:—Goodman's Mechanics Applied to Engineering; Dalby's Balancing of Engines; Spangler's Valve Gears.

354. *Machine Design.*—Third Year.—Two hours per week. Required of students in Mechanical and Electrical Engineering. Principles of the strength of materials as applied to the design of the parts of machines; fastenings used in machine construction, bolts, screws, keys, cotters, rivets and rivetted joints; journals and bearings; shafts and couplings.

355. Fourth Year.—Two hours per week. Required of students in Mechanical and Electrical Engineering.—Design of wheel gearing; belts, ropes and pulleys; pipes and pipe joints; cylinders; eccentrics, piston and piston rods, connecting rods, cross-heads and other engine details; flywheels; design of valves and valve gears.

Text Book:—Spooner's Machine Design (Longmans).

Book of Reference:—Unwin's Machine Design (Longmans, 2 Vols.).

356. *Mechanical Drawing and Designing.*—First Year.—Three hours per week. Required of all Engineering students. Elementary principles of mechanical drawing and draftsmanship; preparation of working drawings of simple machine details; preparation of tracings.

357. Second Year.—Required of all Engineering students. More difficult exercises in mechanical drawing; dimensioned sketches of machine parts; and the making of assembly drawings.

358. Third Year.—Six hours per week. Required of students in Electrical and Mechanical Engineering.—Designing of fastenings, machine parts and simple machines, with the preparation of shop drawings of machinery.

359. Fourth Year.—Six hours per week. Required of students in Mechanical Engineering.—The complete design of a more complex machine, such as a steam engine, a pump, or a machine tool, is worked out, and the requisite working drawings and tracings are prepared.

360. *Thermodynamics.*—Third Year.—Two hours per week. —Required of students in Mechanical and Electrical Engineering.—Fundamental laws and equations of thermodynamics; their application to gases and to vapours, saturated and superheated; efficiency of ideal heat engines; properties of steam, and elementary theory of the steam engine; elementary theory of gas and hot air engines.

361. Fourth Year.—Two hours per week. Required of students in Mechanical Engineering.—Theory of reversed heat engines and refrigerating machines; entropy and entropy-temperature diagrams; more advanced theory of internal combustion engines; a thermodynamic study of the steam engine, including the behaviour of steam in the cylinder; economy of steam engines; influence of size, speed, and rate of expansion; compound expansion; the steam jacket; the testing of steam engines; flow of gases and vapours; theory of steam turbines. The whole course is carried out as far as possible in connection with the experimental work of the Mechanical Engineering Laboratories.

Text Books:—Ewing's Steam Engine (Cambridge Univ Press); Peabody's Tables of Properties of Steam (Wiley).

Book of Reference:—Stodola, The Steam Turbine (trans. Lowenstein), (Van Nostrand).

Mechanical Engineering.

362. (A) General course in Mechanical Engineering of Power Plants and Prime Movers. Required of all Engineering students except those in Mechanical Engineering.

Third Year.—Two hours per week.

Fuel and combustion, steam boilers and steam production; corrosion and defects of boilers; boiler plants and accessories, principles of selection and arrangement; the steam engine—estimation of power developed, economy of steam machinery; the indicator; condensers, pumps and accessories; principles of design in steam plants; gas engines and gas producer plants, their selection, economy and arrangement; general conditions governing location and design of power installations.

Text Books: — Meyer, Steam Power Plants (McGraw); Duncan, Steam and other Engines (Macmillan).

(B) Course required of all students in Mechanical Engineering.

363. Third Year. Two hours per week.

Fuel and combustion; steam boilers and steam production; boiler installation and operation; the indicator; the steam engine, steam distribution and economy; steam turbines; condensers and auxiliary machinery in steam plants; gas engines and gas producer plants.

364. Fourth Year. Two hours per week.

First Term.—Arrangement, design and operation of Power Plants worked by steam or gas engines; effect of requirements for lighting, heating and power distribution; pumping, air compressing and refrigerating machinery.

Second Term.—A student may take one of the following courses:—

365. *Locomotive Engineering.* — Train resistance, tractive force in locomotives; locomotive performance and rating; brakes; fuel and water in locomotive work.

366. *Marine Engineering.*—Ship resistance and propulsion; efficiency and performance of marine machinery and propellers; arrangement and operation of main and auxiliary machinery for marine work.

367. *Heating and Ventilation of Buildings.*—Loss of heat from buildings; radiating surfaces; design and operation of heating systems; principles of ventilation; fans and blowers; design of duct systems; temperature and humidity control.

Text Books:—Ewing, The Steam Engine (Camb. Univ. Press); Meyer, Steam Power Plants (McGraw); Henderson, Locomotive Operation (Railway Age); Seaton, Marine Engineering (Griffin); Snow & Nolan, Ventilation of Buildings (Van Nostrand); Baldwin, Heating (Wiley).

Books of Reference:—Peabody and Miller, Steam Boilers (Wiley); Dowson and Larter, Producer Gas (Longmans);

Taylor, Resistance of Ships (Whittaker); Carpenter, Heating and Ventilating Buildings (Wiley).

Mechanical Engineering Laboratory courses.

Third Year.—Six hours per week. Required of all Engineering students.

375. (*a*) *Thermodynamic Laboratories.*—Testing and calibration of indicators, brakes and other measuring instruments; tests as to economy and performance of a steam engine and boiler, of a gas engine and of an air compressor.

(*b*) *Mechanical Laboratory.*—Testing and experimental investigation of:—The efficiency of belt and other transmission gearing; the properties of lubricants; the operation of brakes and dynamometers.

Fourth Year. Six hours per week. Required of students in Mechanical Engineering.

377. (*a*) *Thermodynamic Laboratories.*—Experimental investigations illustrating the theory of steam engines, gas engines and producers; efficiency and action of steam jackets and condensers; efficiency of air compressing and pumping machinery; test of a complete steam or gas power plant.

(*b*) *Mechanical Laboratory.* — Experimental work on:—Engine balancing and vibration; action of governors; performance of fans and blowers; power absorbed by machine tools; efficiency of hoisting machinery.

Credit for work done in the Laboratories is dependent on the presentation of clear and accurate reports of the experimental and other work performed by the student.

391-5. *Workshop Practice.* (See page 254.)

12. Metallurgical Engineering and Metallurgy.

PROFESSOR:—ALFRED STANSFIELD, D.Sc., A.R.S.M.
DEMONSTRATOR:—HAROLD H. GRAY, B.Sc.
RESEARCH FELLOW:—GORDON St. G. SPROULE, B.Sc.

THIRD YEAR.

401. *General Elementary Metallurgy.* — The lectures include:—(1) A short account of the properties, composition and uses of the common metals and alloys. (2) A course on

Fuel, including the properties and uses of solid, liquid and gaseous fuels; the preparation of artificial fuels such as charcoal, coke and producer gas; pyrometry, calorimetry, refractory materials and furnaces. (3) An outline account of the metallurgy of iron, steel, copper and lead.

Two lectures a week during first term for Metallurgical, Mining and Chemical students.

Text Books:—A. H. Sexton, "Fuel and Refractory Materials;" Huntington and McMillan, "Metals, their properties and treatment."

402. *Fire Assaying.*—The lectures give an account of the furnaces, balances and other appliances used in assaying; the sampling and preparation of ores; fluxes and reagents, and the methods used in assaying gold, silver and lead ores, copper and copper mattes, gold and silver bullion and base bullion.

In the laboratory the students learn to assay gold, silver and lead ores, copper mattes and base bullion, and when time permits, copper, and gold and silver bullion. Metallurgical students can continue this work in their Fourth Year.

Two afternoons a week during the first term, for Metallurgical, Mining and Chemical students.

Reference Books:—R. W. Lodge, "Notes on Assaying"; C. H. Fulton, "Manual of Fire-Assaying."

403. *Metallurgical Calculations.*—This is an introductory course on the application of exact chemical and physical laws to metallurgical operations such as the combustion of fuel, the smelting of ores and the construction and heating of furnaces.

One lecture a week for Metallurgical students.

Text Book:—J. W. Richards, "Metallurgical Calculations," Vol. I.

404. *Metallurgical Works.*—A short course in the second term for metallurgical students as a preparation for the field work in Metallurgy.

405. *Metallurgical Laboratory.*—One period a week during the first term for metallurgical students. The course includes

instruction in pyrometry, calorimetry and the microscopic examination of metals.

FOURTH YEAR.

406. *The Metallurgy of Iron and Steel,* including an account of iron ores and their preparation; the iron blast furnace, its construction and operation; pig iron and its properties; wrought iron, its manufacture and properties; crucible, Bessemer and open-hearth steel making; the properties and heat treatment of steel.

Two lectures a week during the first term for Metallurgical and Mining students.

Text Book:—Bradley Stoughton, "The Metallurgy of Iron and Steel."

Reference Books:—H. O. Hofman, "Metallurgy of Iron and Steel"; T. Turner, "Metallurgy of Iron"; H. M. Howe, "Metallurgy of Steel"; H. H. Campbell, "Manufacture and Properties of Iron and Steel."

407. *The Metallurgy of Copper, Lead, Gold and Silver.*—In these lectures the production of copper and lead from their ores by furnace methods is considered in detail. The refining of these metals by furnace and electrolytic methods and the parting and refining of gold and silver are treated in outline.

Two lectures a week during the second term for Metallurgical and Mining students.

Text Books:—E. D. Peters, "Principles of copper smelting"; H. F. Collins, "Metallurgy of Lead."

Reference Books:—E. D. Peters, "Modern Copper Smelting"; H. O. Hofman, "Metallurgy of Lead"; H. F. Collins, "Metallurgy of Silver"; T. K. Rose, "Metallurgy of Gold."

408. *Electro-Metallurgy.*—This course of lectures is restricted to a consideration of the principles and construction of electric furnaces, and their uses for smelting and refining metals. Other parts of the subject are treated in the lectures on Electro-chemistry (see Chemistry, page 212) and in course (412). One lecture a week during the second term for Metallurgical, Mining and Chemical students.

Text Book:—A. Stansfield, "The Electric furnace."
Metallurgy for Metallurgical students.
Two hours a week during the session.
The course will include some or all of the following:—

409. (*a*) *Alloys.*—The theory of solutions applied to metals and metallic alloys; the composition, manufacture and uses of the common alloys.

410. (*b*) *Metallurgical Calculations.*—A continuation of course 403, applying mathematical treatment to the more important metallurgical processes and furnaces.

411. (*c*) *Metallurgy of Zinc, Nickel, Cobalt, Platinum, etc.*

412. (*d*) *Electro-Metallurgy.*—The electrolytic separation and refining of copper, lead, nickel, gold, silver, etc.

413. (*e*) *Hydro-Metallurgy* of copper, silver, nickel, etc.

414. (*f*) *Metallurgical Construction and Design.*

415. (*g*) *Specifications and Testing* of steel and other metals, refractory materials, fuels, etc.

416. *Colloquium.*—One hour a week during the session is given to informal discussion of research and other work being done in the department, and to other topics of metallurgical interest.

417. *Metallurgical Design.*—This includes designing and drawing metallurgical furnaces and plants. Two periods a week during the second term for Metallurgical students.

418. *Metallurgical Machinery.*—One hour a week during the second term for Metallurgical and Mining students (see Mining, page 240).

419. *Laboratory.*—One whole day per week is given to work in the Ore Dressing and Metallurgical Laboratories in the first term. This time is evenly divided between ore dressing and metallurgy, and certain typical operations in each are carried out either as demonstrations, or by groups or individual students.

One whole day and one half-day in the laboratory in the second term are given to thesis work, and in this individual work each student is permitted to elect between ore dressing

and metallurgy, and, when practicable, to select his own special subject.

The following metallurgical exercises will be carried out, as far as time will permit, during the first term, either as demonstrations, individual work, or work in groups. During the second term, any of these or some similar exercises may be selected by the students as their thesis work:—(*a*) Roasting a sulphide or arsenical ore on a small scale and also in the large roasting furnaces; (*b*) formation and properties of copper or lead mattes and slags; (*c*) smelting a copper or lead ore in the water jacketed blast furnace; (*d*) melting and casting certain metals and alloys; (*e*) the use of the electric furnace; (*f*) leaching a copper or silver ore; (*g*) elementary exercises in some of the following:—pyrometry, calorimetry, flue gas analysis, tests of refractory materials, microscopic examination of metals, heat treatment of iron or steel.

The details of the ore dressing work are given in Mining (432), page 240.

Metallurgical Excursions and Summer Schools.

Students attending the courses in Mining and Metallurgy are required to attend the Summer School in Mining (see page 242), at the end of their Third Year.

At this school, a portion of the time is devoted to a thorough examination of some metallurgical establishments.

In addition to this, excursions may be made by the class from time to time to such metallurgical works as are within reach.

(*For description of Metallurgical and Assaying Laboratories, see page* 325).

13. Mining Engineering.

PROFESSOR:—JOHN BONSALL PORTER, E.M., PH.D., D.SC. (HON.).
ASSISTANT PROFESSOR:—JOHN W. BELL, M.SC.
FELLOW IN MINING:—H. GRAHAM CARMICHAEL, B.SC.
DEMONSTRATOR IN MINING:—E. MONTGOMERY, B.SC.
SPECIAL RESEARCH ASSISTANTS: EDGAR STANSFIELD, M.SC. (VICTORIA); J. H. H. NICOLLS, B.SC.; W. B. CAMPBELL.

THIRD YEAR.

425. *Mining Engineering.—The principles and practice of mining.*—Prospecting, shaft sinking, drifting, simple mining methods, etc. (Two lectures per week in the second term. This course is continued in the Fourth Year. (See 428.)

426. *Ore Dressing.—The theory and practice of ore dressing and coal washing.*—The forms in which ores occur and the effect of mixture, impurity, etc.; the theoretical considerations affecting mineral separations; the general mechanical operations involved. Dressing Machinery—breakers, stamps, rolls, screens, jigs, vanners, tables, washers, buddles, magnetic separators, etc. (Two lectures per week in the second term and laboratory. This course is continued in the Fourth Year. See 430, page 240.)

427. *Ore Dressing Laboratory.*—Simple tests of ores, sands and gravels, by means of pan, vanning shovel, hand jig, magnet, classifier, etc. (One afternoon per week in the second term. Further laboratory work in the Fourth Year, see 432, page 240.)

FOURTH YEAR.

428. *Mining Engineering.—The principles and practice of mining.*—Excavation, explosives and blasting, rock drills, coal cutters, deep wells, diamond drilling, etc.; gold washing, hydraulic mining and gold dredging, open cast mining and quarrying, underground work, developing, methods of mining, timbering, hauling, hoisting, draining, pumping, lighting, ventilating, etc.; mine accidents and their prevention; general

arrangement of plant, administration, stores and dwellings; examination and valuation of mines and mineral properties and mine reports. (Three lectures a week.)

429. *Mining and Metallurgical Machinery.—The application of mechanical and electrical engineering to mining, ore dressing and metallurgy.*—Machinery for haulage, hoisting, pumping, ventilating, etc.; mine power plants, power transmission, tramways, cable ways, etc.; compressors, blowing engines, conveyors, cranes, etc.; mine and mill buildings, head frames, ore bins, lay out of plant, etc. (Two lectures a week in the second term and twenty-five afternoons in the Designing Room).

430. *Ore Dressing and Milling.*—Continuation of the ore dressing course of the Third Year; concentration plants, coal breakers and washers, dry concentration, amalgamation, gold and silver milling, cyaniding, chlorinating, etc. (Three lectures a week in the first term.)

431. *Mining Colloquium.*—One hour a week is given to informal discussion of the work being done in the department and to other matters relating to mining, ore dressing and metallurgy. Students are required to take the leading part in these discussions.

432. *Laboratory.*—Two mornings per week in the first term and two mornings and one afternoon per week in the second are given to the ore dressing and metallurgical laboratories. In the first term this time is evenly divided between ore dressing and metallurgy, and certain typical operations in each are carried out. In the latter part of this term each student is permitted to choose an individual subject or thesis, and the whole of the laboratory time in the second term is given to this thesis work.

The set exercises in ore dressing comprise a series of experiments in crushing, classifying, jigging, slime treatment, magnetic separation, cyanidation and amalgamation, and include a complete trial run of the five-stamp battery on a free milling gold ore.

The subjects available for thesis work are very numerous and range from purely theoretical investigations in crushing, screening, classification, concentration, etc., to the experimental determination of the best methods for the treatment of particular ores and coals. Over one hundred and twenty-five different lots of ore are available, and the quantities are sufficient for work on a comparatively large scale. New ores are constantly being secured.

Text Books:—No set text books are used, but students are recommended to freely consult the following works of reference, in addition to the special references given from time to time:—Sir C. LeNeve Foster's Ore and Stone Mining; Mayer's Mining Methods in Europe; H. W. Hughes' Text Book of Coal Mining; Boulton's Coal Mining; Behr's Winding Plants for Great Depths. Saunders' Mine Timbering; Ihlsing's Manual of Mining; R. H. Richard's Ore Dressing; T. A. Rickard's Stamp Milling of Gold Ores and Sampling and Estimation of Ore in a Mine; H. Louis' Handbook of Gold Milling; T. K. Rose's Metallurgy of Gold; M. Eissler's Metallurgy of Gold; H. F. Collins' Metallurgy of Silver; James' Cyanide Practice; Julian and Smart's Cyaniding Gold and Silver Ores; The Coal and Metal Miners' Pocket-book.

Laboratories.

During the first three years of the course the students do systematic work in the workshops and laboratories of the other departments. During the Third and Fourth Years they spend a large proportion of their time in the special laboratories for ore dressing and metallurgy. (See pp. 325 and 326). In these laboratories the general method of instruction is first to conduct a limited number of important typical operations, and then to assign to each student certain methods which he must study out in detail, and upon which he must experiment and make written report. In this work he is guided by the professors and demonstrators, and assisted by the other students, whom he must in turn assist when practicable. In this way

every student acquires detailed knowledge of certain typical operations and a fair general experience in many of the important methods in use.

Illustrations, Museums, Societies, Etc.

In addition to a large series of lantern slides, the department owns a collection of over four thousand photographs and other illustrations. This collection is constantly being enlarged.

The Museums of the building contain suites of ores, concentrates, fuels and metallurgical materials, models of mines and furnaces, and collections of finished products.

The McGill University Mining Society meets weekly or fortnightly to read and discuss papers by graduate and student members, and from time to time to hear lectures given by gentlemen eminent in the profession. Special arrangements have been made whereby students may attend meetings of the mining section of the Canadian Society of Civil Engineers, and members of the Mining Society are privileged, for a nominal fee, to become student members, and to receive all the publications of the Society.

The Society has also been made a students' section of the Canadian Mining Institute, and its undergraduate members are therefore student members of the Institute, and receive all its publications. Papers read before the Mining Society may be entered in competition for any students' prizes offered either by the Can. Soc. of Civil Engineers or by the Can. Mining Institute. (See pp. 62 and 184.)

Field School in Mining.

435. The summer vacation class instituted in 1898 is now a fixed part of the course. All students of Mining in regular course are required to attend this class at the end of the Third Year.

The school lasts about six weeks. Of this period about one-sixth is given to field work in geology, one-half or more to mining work proper, and the remainder, when practicable,

to an examination of ore dressing and milling plants and metallurgical establishments. The Professor of Mining and his assistant go with the party and hold daily demonstrations or classes. The students take notes and sketches on the ground, and afterwards are required to work up these notes and to submit a formal report on some part or the whole.

The work in geology and metallurgy is carried on by officers of these departments, who attend the school for this purpose, and in certain cases it is found practicable to permit students especially interested in these subjects to substitute additional work in them for a portion of the mining.

During the last eleven years these field parties have visited British Columbia thrice, Nova Scotia thrice, Pennsylvania twice, Michigan, Newfoundland and Ontario once each. In 1908 the work was done in the Sudbury district of Ontario and in British Columbia and Alberta.

The instruction given during this field course is free to all Mining students, the only expense to them being the cost of board, lodging, and railway fares. These expenses are kept as low as is practicable and are in part met by the income of a fund provided by Sir William Macdonald, from which deserving students who require aid can also have money advanced them by applying to the Professor of Mining.

14. Physics (Experimental.)

PROFESSORS:—H. T. BARNES, D.Sc., *Director.*

ASSISTANT PROFESSOR:—H. L. BRONSON, Ph.D.

LECTURER:—F. H. DAY, M.Sc.

DEMONSTRATORS:—A. N. SHAW, B.A.
W. S. VIPOND, M.Sc.
N. R. GILLIS, M.Sc.
S. J. CROCKER, B.A., B.Sc.

The instruction includes a fully illustrated course of experimental lectures on the general principles of Physics (embracing, in the First Year, *The Laws of Energy—Heat, Light, and Sound;* in the Second Year, *Electricity and Magnetism*), ac-

companied by courses of practical work in the laboratory, in which the students will perform for themselves experiments, chiefly quantitative, illustrating the subjects treated in the lectures. Opportunity will be given to acquire experience with all the principal instruments used in exact physical and practical measurements.

Laboratory Course.

501. First Year.—Three hours per week spent in practical measurements in the Macdonald Physical Laboratory in conjunction with the lecture courses and in accordance with the following outline:—

Heat.—Constructio and calibration of thermometers; boiling points; air thermometer; expansion of solids, liquids and gases; calorimetry; latent heats.

Sound.—Velocity of sound; determination of rates of vibration of tuning forks; resonance; laws of vibration of strings.

Light.—Photometry; laws of reflection and refraction; focal lengths and magnifying powers of mirrors, lenses, telescopes and microscopes; the sextant; spectroscope, spectrometer, optical bench.

Text Books: — Watson (Longmans); Tory and Pitcher, Laboratory Manual.

502. Second Year.—Magnetism and Electricity.—Measurements of pole strength and moment of a magnet; the magnetic field; methods of deflection, and oscillation; comparison of moments and determination of the elements of the earth's magnetism; variometers.

Current Electricity.—A complete course of measurements of current strength, resistance, and electromotive force; calibration of galvanometers.

Text Books: — Watson (Longmans); Tory and Pitcher, Laboratory Manual.

503. An additional course of six weeks, involving four laboratory periods per week with lectures, will be given in May and June.

504. THIRD YEAR. — Students of Electrical Engineering will continue their work in the Physical Laboratory in the Third Year. The following is a brief outline of the course:—

Magnetic elements and measurements; testing magnetic qualities of iron; theory and practice of absolute electrical measurements; comparison and use of electrical standards of resistance, E. M. F., self and mutual-induction, and capacity; principles of construction of electrical instruments; testing and calibration of ammeters and voltmeters; insulation and capacity tests; electrometers and ballistic methods; testing for capacity and rate of discharge; electric light photometry; alternating currents.

ADVANCED COURSES.

The following are some of the sections in which special provision has been made for advanced physical work:—

510. *Heat.*—Thermometry:—Comparison and verification of delicate thermometers; air thermometry; measurement of high temperatures; electrical resistance thermometers and pyrometers; thermo-electric pyrometers.

Calorimetry:—Mechanical equivalent of heat; variation of specific heat and temperature; latent heat of fusion and vaporisation; heat of solution and combustion; electrical methods; radiation and conduction of heat with special methods and apparatus; dynamical theory of gases; viscosity; surface tension; variation of properties with temperature.

511. *Light.* — Photometric standards; spectro-photometry; theory of colour vision; spectroscopy and spectrum photography; compound prism spectrometers; six inch and 2½ inch Rowland gratings; study of spectra of gases; fluorescence and anomalous dispersion; polarimetry; Landolt and other polarimeters; form of wave surface.

512. *Sound.*—Velocity in gases and various media; absolute determinations of period; harmonic analysis of sounds; effects of resonance and interference.

513. *Electricity and Magnetism.*—Magnetic properties; influence of stress and torsion; influence of temperature;

effects of hysteresis; magneto-optics; other effects of magnetisation; diamagnetism; electrical standards and absolute measurements; calibration of electrical instruments; insulation and capacity testing; electrometer and ballistic methods; temperature, variation of resistance, and E.M.F.; thermo-electric effects; electrolysis; chemistry of primary and secondary batteries; resistance of electrolytes; polarisation; electric discharge in gases and high vacua; dielectric strength; behaviour of insulators under electric stress, specific inductive capacity; alternating currents; electrical waves and oscillations; conductivity of gases.

514. *Radioactivity.*—The Laboratory possesses a considerable stock of radium, and a large amount of apparatus originally designed by Professor Rutherford for investigations in this subject. During the second term a course of lectures in Radioactivity will be delivered by Professor Eve.

15. Surveying and Geodesy.

PROFESSOR:—C. H. McLEOD, Ma. E.
LECTURER:—J. B. HARVEY, M.Sc.
DEMONSTRATORS:—E. O. TEMPLE PIERS, B.Sc.

This course is designed to give the student a theoretical and practical training in the methods of plane and geodetic surveying, in the field work of engineering operations, and in practical astronomy. The lecture course is divided as follows:—

160. SECOND YEAR.—Chain and angular surveying; the construction, adjustment, use and limitations of the transit, level, micrometer, compass and minor field instruments; topography; levelling; contour surveying; railway circular curves; planimeter and pantograph; general land systems of the Dominion and Provinces. Mr. Harvey.

161-2. THIRD YEAR.—Theory and use of office and field instruments; theory of transition curves; hydrographic surveying; the use of the plane table; mining surveying; barometric

and trigonometric levelling; elements of geodetic surveying; elements of practical astronomy. Professor McLeod.

163. FOURTH YEAR.—*Practical Astronomy.*—The determination of time, latitude, longitude and azimuth. *Geodesy.*—Figure of the earth, measurements of base lines and triangulation systems; adjustment and reduction of observations. Professor McLeod.

Field Work.—The students are required to carry out the following work:—

165. SECOND YEAR.—(1) A farm survey, using chain and compass; (2) a compass and micrometer survey; (3) a detail survey, using chain and offset; (4) levelling; (5) transit work.

166. THIRD YEAR.—(1) Level and transit practice, including the adjustments of the instruments; (2) a survey and location of a railway line, with determination of topography and contours and subsequent staking out for construction; (3) a stadia survey; (4) a hydrographic survey of a river channel, including measurement of discharge; (5) a survey at night illustrating underground methods; (6) astronomical observations with sextant and engineer's transit.

167. FOURTH YEAR.—(1) Determination of latitude (*a*) by transit and sextant observations on Polaris, (*b*) by zenith telescope, (*c*) by noon observations with transit and sextant; (2) determination of azimuth, (*a*) by equal altitude observations of the sun, (*b*) by observation of elongation of Polaris, (*c*) by observation of a circumpolar star with engineer's transit, (*d*) by means of solar attachments and solar compass; (3) determination of time, (*a*) by equal altitude observations of the sun with sextant and transit, (*b*) by observations of the meridian passage of stars with astronomical transit; (4) determination of longitude by clock comparisons and by lunar observation; (5) base line measurements; (6) precision levelling; (7) measurement of angles by geodetic methods; (8) plane table surveys; (9) special problems in railroad track work.

All students are required to keep complete field notes, and to prepare maps, sections and estimates from their own sur-

veys. This office work is principally done during the regular session.

Field work is required of all students of the Second Year (except those taking the Practical Chemistry Course), of students of the Third Year in the courses of Civil and Mining Engineering and in Transportation, and of the Fourth Year in the Civil Engineering Course. The work will begin in 1909 on September 6th, and will continue for four weeks.

170. *Geodetic Laboratory.*—FOURTH YEAR.

The following determinations of the constants and errors of surveying instruments are made in the geodetic laboratory (for equipment, see page 324) by the Fourth Year students in the Civil Engineering Course:—

(1) Measurement of magnifying power; (2) errors of graduation; (3) measurement of eccentricity of circles; (4) determinations of errors of run of theodolite microscopes; (5) investigation of the errors of graduation of a standard bar; (6) graduating scales with the dividing engine, and comparison thereof on the comparator; (7) investigation of the errors of graduation of circles on the circular comparator; (8) determination of the constants of steel tapes; (9) investigation of the graduation errors of steel tapes on the fifty-foot comparator; (10) determination of the scale value of level vials; (11) investigation of the accuracy of barometers.

The equipment of the surveying department comprises the following, in addition to the apparatus of the observatory and geodetic laboratory:—Fifty-two transit theodolites by various makers, with solar and mining attachments; a photo-theodolite; two 8-in. alt-azimuths; nineteen dumpy and eleven wye levels; two gradient-telemeter levels; hand levels and clinometers; three precision levels; fifteen surveyor's compasses; one miner's dial; three prismatic compasses; pocket compasses; marine sextants; artificial horizons; box sextants; two reflecting circles; seven plane tables; six current meters; Rochon micrometers; double image micrometers; field-glasses; two heliotropes; several barometers; one 100 ft. Invar tape;

300 ft. and 500 ft. steel tapes suitable for base measurements; steel chains and steel bands: linen and metallic tapes; sounding lines; pickets; levelling rods; micrometer targets; slope rods; pedometers; station pointer, pantographs, planimeters, slide rules and minor appliances.

EXAMINATIONS FOR LAND SURVEYORS:—Any graduate in the Faculty of Applied Science in the Department of Civil Engineering and Land Surveying, may have his term of apprenticeship shortened to one year for the profession of Land Surveyor.

Text Books and Books of Reference:—Gillespie's Surveying, Johnson's Theory and Practice of Surveying, Shortland's Nautical Surveying, Greene's Practical and Spherical Astronomy, Nautical Almanac, Baker's Engineers' Surveying Instruments.

16. Department of Railways.

PROFESSORS:— H. O. KEAY, B.Sc. (Mass. Inst. Tech.); V. I. SMART, B.A. (Queen's).

LECTURERS:— MR. A. A. GOODCHILD. MR. HERBERT MARTIN. MR. GEO. C. WELLS.

INSTRUCTORS:— MR. H. F. MILLER. MR. A. W. YOUNG.

THIRD YEAR. (OPERATING AND EXECUTIVE.)

551. *Economics.*—Economic theory, with special reference to the organization of modern commerce and industry, railways and their development, essay writing, the preparation of reports and discussion of practical problems. Dr. Leacock.

526. *Engineering Law.*—See page 228.

230. *English.*—The preparation and criticism of reports on stated subjects, the object being to acquire a clear and accurate style. Mr. Latham.

107. *Foundations and Masonry.*—See page 215.

451. *Freight Service.*—Freight department organization, records, and statistics,—a full explanation of the methods of handling freight. Mr. Martin.

375. *Mechanical Engineering Laboratory.*—Experiments relative to the pressure and temperature of saturated steam, gauge testing, valve setting, trials upon steam engine, air compressor, steam pumps and gas engine, boiler trials, and air brake work. This course is supplemented by visits to power plants and locomotive shops. Professor Keay.

453. *Railway Engineering*—History of Canadian railways; the Railway Act of 1903; the conditions governing projected railway lines; the railway corporation; effect of location on volume of traffic; estimate of probable traffic; economic consideration of distance, curvature and grade; relative importance of grades; train resistance; equipment; limiting grades and curvature; trunk and branch lines; the reconnaissance for route; organization and records; preliminary survey; field work, organization and equipment; maps and office work; location; curves; vertical curves; transition curves; equating curves; virtual profile, maximum grades; ruling grades; rise and fall; cross sections; estimates and computation of quantities; comparison and capitalization of two lines; cost of surveys; construction; earthworks; form of excavations and embankments; earthwork surveys; computation of volume; formation of embankments; computation of haul; cost of earthwork; trestles; pile and framed trestles; floor systems; openings; culverts and minor bridges; ballast; rail; rail fastenings; ties; switches and crossings; switch construction; mathematics of switch design; miscellaneous structures; yards and terminals; *drafting* from notes, the paper location of a railway; maps and profiles; earthwork diagrams; switch design; yard design. Professor Smart.

For list of Reference Books, see page 254. (Fourth Year Railway Engineering.)

456. *Railway Mechanical Engineering.*—Elementary course on the steam engine, steam boilers, power plant equipment, steam turbines, gas engines, compressed air and elementary locomotive construction and operation. Professor Keay. Text Book:—Duncan's Steam and Other Engines (Macmillan).

463. *Railway Organization and Elements of Accounting.*—Organization and Work of the various departments; duties of officers; accounting. (A course preparatory to that of the Fourth Year). Mr. Goodchild.

105. *Strength of Materials.*—See page 214.

108. *Structural Engineering.*—See page 215.

470. *Shorthand.*—Mr. Young.

472. *Telegraphy.*—Mr. Miller.

NOTE.—Students are required to follow systematic courses in shorthand and telegraphy throughout the Third and Fourth Years.

FOURTH YEAR. (OPERATING AND EXECUTIVE.)

464. *Accounting.*—The principles of accounting, a development of the course of the Third Year. Earnings and expenses; shop material and cost; labor and methods of paying for same; statements, their nature and value. Mr. Goodchild.

552. *Economics.*—Transportation Economics, including the theory of railway rates, railway commissions, taxation of railways, government ownership and control, the treatment of transportation problems in Europe and America, etc. Attention will be paid to questions closely connected with transportation in Canada, such as the relative powers of the Dominion and Provincial Governments, the tariff, immigration, government aid to railways, public lands and immigration, *Essays* connected with the above questions will be required. Dr. Hemmeon.

208-9. *Electrical Engineering.*—For details, see page 223.

231. *English.*—Continuing the work of the Third Year. Mr. Latham.

452. *Freight Service.*—An extension of the work of the Third Year. This course involves a discussion of the broader problems of the Freight Traffic Department. Mr. Martin.

465. *Operation.*—Organization of conducting Transportation Department, the development of train dispatching in America, the development of the control of train movement in Europe, Conducting Transportation Expenses, standard time, the American Railway Association, formation of time tables, standard train rules, rule for movement of trains on single track, rules for movement of trains on double track, general rules covering the operation of trains and handling of freight and passengers, clearance cards and other blanks, station service, yard service, road service, duties of dispatchers and operators. Professor Smart.

460. *Signals.*—Block signalling, manual systems, automatic systems, estimates and plans. Professor Smart.

461. *Interlocking.*—Economic considerations, the different forms of mechanical interlocking machines, the locking sheet, dog charts, the lead out, the ground connections, switch and signal connections, the cabin, power machine, electro-pneumatic, all electric costs, interlocking of terminals and yards, electrical apparatus in connection with mechanical machines, construction and maintenance, organization of signal department, records and reports; *Drafting.*—Design of crossing lay out, making of locking sheets and dog charts, block signal location plans, design of switch and signal connections. Professor Smart.

Books of Reference:—Adams, Block Signalling; Wilson's Mechanical interlocking for Railways; Dere's Block Signal Operation; Rules of the London North Western Railway; American Railway Assoc. Standard Code: Manual of recommended practice; American Railway Engineering and Maintenance of Way Assoc.; Lavorack's Locking.

467. *Passenger Service.*—The passenger department: its organization, methods and general principles governing passenger business; baggage system; mail and express. Mr. Wells.

259. *Physical Geography and Climatology.*—Geographical subdivisions of the country; mineral areas; timber belts; wheat areas and water powers; irrigation; climatology and its relations to occupations and soil products. Mr. Bancroft.

527. *Railway Law.*—This course is concerned largely with the Railway Act, and a general outline of the law of common carriers. Special attention will be given to such subjects as expropriation, damage suits against railway companies, and the more usual forms of contracts with carriers. Dr. Walton.

457. *Railway Mechanical Engineering.*—Locomotive tractive power, train resistance, tonnage rating, locomotive testing, comparative costs of locomotive operation, boiler incrustation, chemical control of water purifying plants, determination of hardness, acidity, etc., fuel handling, location, design, equipment, and organization, with reference to roundhouses and railway shops, mechanical engineering requirements at terminals. Professor Keay.

Text Books:—Henderson's Locomotive Operation (Railway Age); Henderson's Cost of Locomotive Operation (Railroad Gazette).

454. (*a*) *Railway Engineering.*—Interlocking, block signalling, organization of operating department, operating expenses, records and reports, maintenance of way organization, accounts and programme for expenditures, track maintenance, tie renewals, ballast renewal, relaying and renewing rails, track tools, work train service, steam shovel work. Professor Smart.

(*b*) *Electrical Railways.*—Economic considerations, preliminary surveys, determination of schedules and equipment, details of location, details of construction, power plant

location, organization of operating department, maintenance of track and structures. Professor Smart.

Reference Books:—Canadian Railway Act of 1903; Wellington's Economics of Railway Location; Lavis, Railway Location Surveys and Estimates; Webb's Economics of Railway Construction; Gillette's Earthwork and its Cost; Allen's Railway Curves and Earthwork; Manual American Railway Engineering and Maintenance of Way Assoc.; Rules of the M. of W. Dept. C. P. R.; Gotshall's Electric Railway Economics; Tratman's Track and Track Work; Paine's Roadmaster's Assistant; Camp's Notes on Track.

471. *Shorthand.*—Mr. Young.

473. *Telegraphy.*—Mr. Miller.

Continuing the Third Year courses.

17. Shopwork.

INSTRUCTORS.

CARPENTER SHOP AND PATTERN SHOP.....G. WOOLEY.
SMITH SHOP .....J. STEWART.
FOUNDRY .....H. LANE.
MACHINE SHOP .....A. W. MILLER.

The course in shopwork is intended to afford some preparation for that study of workshop practice on a commercial scale which every engineer has to carry out for himself. With this end in view, the student works in the various shops of the department, and completes in each a series of practical exercises. He thus obtains some knowledge of the nature and properties of the various materials he employs; he receives systematic instruction in the use and care of the more important hand and machine tools; and he acquires some manual skill.

The instruction thus obtained must, however, be continued and supplemented. *For this purpose students are expected to spend the greater portion of each long vacation in gaining practical experience in engineering workshops outside the University.*

Throughout the course, advanced students are as far as possible entrusted with the construction and erection of machinery and apparatus which afterwards form part of the equipment of the department. An air-compressor, a boring bar, a belt-testing machine, and a duplex feed pump, are examples of the work which has been done in this manner. Such students are also encouraged to see and assist in the repairs required by the engines, boilers and machine tools in the engineering building.

Students are required to read and make notes of selected portions of certain text-books, and articles in technical journals, illustrative of the work done in each shop.

In connection with his shopwork each student is required to keep a record of his work. These records or notes are made on standard forms. These are handed in to the Shop Instructor at the close of each period of work, and, together with diligence and the results of a brief written examination, form the basis on which credit for shopwork is assigned.

The work of the various shops is carried out under the direction of the Professor of Mechanical Engineering. The following are the subjects of instruction:—

391. *Carpentry and Joiner Work.*—Sharpening and care of wood-working tools; sawing, planing and paring to size; preparation of flat surfaces, parallel strips, and rectangular blocks; construction of the principal joints employed in carpentry and joiner work, such as end and middle lap joints, end and middle mortise and tenon joints, mitres, and dado and sash joints; dovetailing; scarfing; joints used in roof and girder work; wood-turning; use of wood-turning tools.

392. *Pattern Making.*—Use of pattern-makers' tools; elements of pattern-making; allowances to be made for draught and for contraction in moulding and casting; use of contraction rule; preparation of prints and plain core-boxes; exercises in paring and turning; construction of patterns and core boxes for pipes. flanges, elbows, tees, and valves; more difficult exercises in pattern-making, including built-up patterns and face-plate work; gear and wheel patterns.

393. *Smith-Work.*—The forge and its tools; use and care of smiths' tools; management of fire; use of anvil and swage-block; drawing taper, square and parallel work; bending, up-setting, twisting, punching, and cutting; welding and scarfing; forging, hardening, and tempering tools for forge and machine work; tempering drills, dies, taps, and springs.

394. *Foundry-Work.*—Moulders' tools and materials used in foundry work; the cupola; the brass furnace; preparation of moulding sand; boxes and flasks; core-making; use of core-irons; bench moulding; blackening, coring and finishing moulds; vents, gates and risers; special methods required in brass moulding; floor moulding; open sand work; advanced examples of moulders' work; melting and pouring metal; mixtures for iron and brass casting.

395. *Machine-shop Work.*—Exercises in chipping; preparation of flat surfaces; filing to straight edge and surface plate; scraping, screwing and tapping; use of scribing block and surface gauge; marking off work for lathes and other machines; turning and boring cylindrical work to gauge; surfacing; screw-cutting and preparation of screw-cutting tools; use of turret lathe; taper turning; machining flat and curved surfaces on the planing and shaping machines; plain and circular milling with vertical and horizontal spindles; gear-cutting; cutter-grinding; drilling and boring; use of jigs; grinding flat and cylindrical surfaces; cutting tools for hand and machine; their cutting angles and speeds; dressing and grinding tools.

SPECIAL INFORMATION REGARDING THE FACULTY OF LAW.

THE SESSION 1909-1910 WILL OPEN ON FRIDAY, OCTOBER 1ST, 1909.

The lectures are delivered in the rooms furnished for the Faculty in the east wing of McGill College by its munificent benefactor, Sir Wm. C. Macdonald.

Students have the free use of the Law Library of the Faculty, to which large additions are continually being made, those lately added including, among many others, the Ontario Reports, the Nova Scotia Reports, Dalloz, Recueil Périodique, Campbell's Ruling Cases, the Encyclopædia of the Laws of England, the new series entitled "The English Reports," the American and English Encyclopædia of Law and the American and English Encyclopædia of Pleading and Practice. It is hoped that before long this Library will contain all the Reports of the several Provinces of Canada. The principal reports and legal periodicals are taken. A special room for Law students is provided in the University Library. This room is open during the day, and in the evenings from eight to ten o'clock.

Particulars regarding the following points will be found on the pages named:—

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For Time Tables of Lectures, see first part of Calendar.

* The attention of students who intend to practise law in the Province of Quebec, or to be admitted to the notarial profession, is called to the statutory requirements for admission to study. These will be found on page 271.

SPECIAL REGULATIONS.

1. Students shall register at the Office of the University Registrar before commencing the work of the Session. The Register of Matriculation shall be closed on the 15th of October in each year. Candidates applying thereafter may be admitted on a special examination to be determined by the Faculty.

2. The lectures will be delivered between the hours of half-past 8 and half-past 9 in the morning, and between 4 and half-past 6 in the afternoon; and special lectures in the evening at such hours and in such order as shall be determined by the Faculty. Professors shall have the right to substitute an examination for any such lecture.

3. Undergraduates shall be known as of the First, Second, or Third Year, and shall be so graded by the Faculty. In each Year, students shall take the studies fixed for that Year, and those only, unless by special permission of the Faculty.

4. At the end of each College Year there shall be a general examination of all the classes, under the superintendence of the Professors, and of such other examiners as may be appointed by the Corporation. The examination shall be conducted by means of printed questions, answered by the students in writing in the presence of the examiners.

5. At the end of the Third College Year there shall be a final examination of those students who have completed the curriculum. This examination shall be conducted by written papers, which may be supplemented by an oral examination. It shall cover all the subjects upon which lectures have been delivered during the three years' course. Those students who satisfy the examiners shall be entitled, after making the necessary declaration and payment of the Graduation Fee, to proceed to the Degree of B.C.L. There shall be no sessional examination of students who are candidates in the final examination.

6. No student shall be considered as having kept a Session unless he shall have attended regularly all the courses of lectures, and shall have passed the sessional examinations to the satisfaction of the Faculty in the classes of his Year.

7. The Faculty shall have the power, upon special and sufficient cause shown, to grant a dispensation to any student from attendance on any particular course or courses of lectures, but no distinction shall in consequence be made between the examinations of such students and those of the students regularly attending lectures.

8. Every candidate, before receiving the degree of B.C.L., shall make and sign the following declaration:—

Ego A.B. polliceor sancteque recipio, me, pro meis viribus, studiosum fore communis hujus Universitatis boni, et operam daturum ut ejus decus et dignitatem promoveam, et officiis omnibus ad Baccalaureatus in Jure Civili gradum pertinentibus fungar.

9. On the following days, when they fall within the session, no lectures will be delivered, viz.: Ash Wednesday, Good Friday, Easter Monday, and Thanksgiving Day. On the following days the morning lectures will be omitted, viz.: All Saints' Day (Nov. 1st), and Conception Day (Dec. 8th).

ADVISORY COMMITTEE.

The attention of the McGill Law Faculty has been drawn to the fact that students commencing their undergraduate course frequently need information with regard to law offices in which their services would be welcomed. For the purpose of furnishing such information and also of assisting the graduates of the Law school to obtain suitable positions in offices needing legal assistance, a number of members of the Bar have been kind enough to form themselves into an Advisory Committee. Members of the Bar desiring the assistance of students or young graduates are requested to communicate with the Secretary of this Committee, Mr. C. M. Cotton, B.A., B.C.L. The Committee consists of the following gentlemen:—

C. J. Fleet, B.A., B.C.L., K.C.; W. J. White, M.A., D.C.L., K.C.; E. E. Howard, B.A., B.C.L.; Lawrence McFarlane, B.A., B.C.L.

THE COURSE OF STUDY.

The Curriculum extends over three years. It includes lectures upon all the branches of the Law administered in the Province of Quebec, and also upon Roman Law, Legal History, and the Constitutional Law of England, and of the Dominion. Its primary design is to afford a comprehensive legal education for students who intend to practise at the Bar of the Province. In all the courses the attention of students is directed to the sources of the Law, and to its historical development. During their First Year the students will attend one hundred lectures on Roman Law, from which the Law of this Province is in great part derived. In the lectures on Legal History, the history of our Law since the Cession, and its relations to the French and to the English Law, will be explained. First Year students will also attend courses on the Law of Persons; the Law of Real Estate; the Law of Obligations; the elementary rules of Procedure; and an introductory course on Criminal Law. A new feature of the First Year curriculum is a practical course on Pleading, with numerous exercises in drafting. This course will be given in French. The remaining branches of Law, civil, commercial, and criminal, will be dealt with in the Second and Third Years. During the three years the Civil Code, the Criminal Code, and the Code of Civil Procedure will be covered, and lectures will also be given upon such subjects as Bills of Exchange, Merchant Shipping, and Banking, which are regulated mainly by special statutes, as well as on the law of Evidence. A course in Municipal Law has also been arranged for.

The Faculty desire to impress upon English students the great importance of obtaining a familiar knowledge of French. In the practice of the profession in this Province it is indispensable that a lawyer shall be able to write and speak French. The Faculty are determined to exact a high standard in this subject, and have passed a new regulation to secure this end

(see page 28). Moot Courts are held from time to time in order to afford practice in the presentation of legal arguments.

Those students who are able to take the B.A. course before entering upon their legal studies are strongly recommended to do so. Those for whom this is impossible are advised to attend courses in the Faculty of Arts for two years.

COURSES OF LECTURES.

Roman Law.

PROFESSOR:—F. P. WALTON, B.A. (Oxon), LL.B. (Edin.), LL.D. (Aberd.)

During the first part of the course the external history of the law from the early period to the codification of Justinian will be dealt with. The sources of the law will be described, and the gradual evolution explained by which the law of the city of Rome became fitted to be the law of the civilized world. A brief sketch will be given of the legal institutions of Rome in the first period and of the early constitutional history.

In the doctrinal part of the course matters mainly of antiquarian interest will be touched on but slightly. Those portions of the Roman Law which have been followed most closely in the existing law of the Province, *e.g.*, property, servitudes, pignus and hypothec, and obligations, will be treated in detail, and the modifications made by the modern law will be noticed. Class-examinations will be held from time to time, and a first and second prize in books will be given to the two students who obtain the highest marks in these examinations.

Text-books:—For the historical part, Walton's Historical Introduction to the Roman Law; and for the Institutes, Moyle's or Sandar's Institutes of Justinian, or Girard, Manuel de Droit Romain.

Books of Reference:—

Muirhead's Historical Introduction to Roman Law; Muirhead's Institutes of Gaius; Maynz, Cours de Droit Romain; Puchta, Institutionen; Maine's Ancient Law.

Constitutional and Administrative Law.

PROFESSOR:—F. P. WALTON, B.A. (Oxon), LL.B. (Edin.), LL.D. (Aberd.)

The object of this course is to shew the actual working of the Canadian constitution. A sketch of the constitutional history prior to Confederation is given. The B. N. A. Act is explained, and the leading cases discussed which illustrate the respective powers of the Federal and of the Provincial Legislatures. The growth of Cabinet Government is traced, and some of the fundamental rules of the English Constitution are expounded and contrasted with those followed in other countries.

No text-book is prescribed, but students are recommended to refer to Todd, Parliamentary Government in the British Colonies; Houston, Constitutional Documents of Canada; Dicey, Law of the Constitution; Anson, Law and Custom of the Constitution.

Obligations—Advanced Course.

PROFESSOR:—F. P. WALTON, B.A. (Oxon), LL.B. (Edin.), LL.D. (Aberd.)

Two alternate courses are delivered to students of the Second and Third Years.

Their object is to explain important parts of the law of obligations in more detail than is possible in the general course on the subject.

The method is mainly the explanation of illustrative cases. Frequent references are made to French and English decisions.

Legal History and Bibliography.

PROFESSOR:—ARCHIBALD MCGOUN, M.A., B.C.L., K.C.

This course comprises an outline of the history of the law in force in the Province of Quebec.

The main source from which our law is derived is the Customary Law of France, as modified by the principles of Roman Law, embodied in several of the codes or collections of Roman Law before the time of Justinian. The Customs

of France after being reduced to writing were further modified by the influence of modern Roman Law, which prevailed throughout the larger part of France. The ordinances of the French kings and the commentaries of the great jurists, from Cujas and Dumoulin down to Pothier, brought the Civil Law of France into the systematic form in which it was administered in this Province. The Custom of Paris, one of the most important of those recognized in France, became formally the basis of the Civil Law in this country, and the ordinance of 1667 was the main authority for procedure.

Since the opening of the British régime the development of Lower Canadian Civil Law has proceeded independently of the Civil Law of France, where the Code Napoléon was passed early in the Century. In Lower Canada a code on the same lines was adopted shortly before Confederation. Lower Canadian Civil Law has been modified by English Law in commercial matters, and also by statutes passed in the Province. The Criminal Law has been derived almost exclusively from the Criminal Law of England.

The leading authorities upon the main branches of the law, with the reports of decisions of our courts, are brought under the attention of the students in this course.

Agency and Partnership.

PROFESSOR:—ARCHIBALD McGOUN, M.A., B.C.L., K.C.

This course begins with the principles of the law of Mandate, as laid down in the Civil Code of Lower Canada, and treats of Civil and Commercial Agency. The rights and liabilities of principal and agent both between themselves and in relation to third parties is considered, and special attention is directed to the powers of agents in selling, pledging, and dealing with the property of the principal. The law relating to factors or commission merchants, brokers, and other agents is explained.

In partnership the right of each partner to bind his fellow partner in virtue of the mandate reciprocally given and en-

joyed, leads to the distinction between civil and commercial partnership, and the limited partnership, or société en commandite, is also treated of. The distinction between partnership and joint stock companies leads to a consideration of the connexion between this subject and the subject of Companies and Corporations which form the subject matter of a course given in alternate years.

Law of Corporations and of Joint Stock Companies.

LECTURER:—G. W. MACDOUGALL, B.A., B.C.L., K.C.

General course on organization of companies under the Dominion and Quebec Companies Acts. Nature of various securities; rights and powers of directors and shareholders; amalgamation and reorganization of companies; winding-up proceedings.

Criminal Law.

PROFESSOR:—HON. C. P. DAVIDSON, M.A., D.C.L.

This course includes:—

A history of the Criminal Law and Criminal Procedure of England, and of their introduction into and development throughout Canada; discussion of the Criminal Code and other statutes enacting criminal offences; of the rules of evidence in criminal cases; of the Fugitive Offenders' Act; of extradition; and, generally, of the principal features belonging to the Criminal Law of the Dominion.

Commercial Law, I.

PROFESSOR:—R. C. SMITH, B.C.L., K.C.

The subjects dealt with will include commercial sales and the law of insurance.

The course on Insurance will cover:—

(*a*) Insurance, contracts of; (*b*) marine insurance; (*c*) fire insurance; (*d*) life insurance.

Civil Procedure, I.

PROFESSOR:—G. W. MACDOUGALL, B.A., B.C.L. K.C.

This course to the students of the First Year is intended to form an introduction to the subject, to explain the simpler kinds of actions, the general rules of pleading, and the jurisdiction of the several courts.

The revised Code of Civil Procedure for the Province of Quebec is the text-book.

Persons.

PROFESSOR:—G. W. MACDOUGALL, B.A., B.C.L., K.C.

This course covers the Law of acts of civil status, absentees, marriage, separation, divorce, filiation, minority and interdiction.

Commercial Law, II.

PROFESSOR:—HON. C. J. DOHERTY, D.C.L.

The subjects dealt with are: bills and notes, the law of carriers, and the law of banks and banking. They are treated in three courses, constituting:—

1. A commentary on the Bills of Exchange Act.
2. A commentary on Section 3 of the Title of Lease and Hire, and on the second, third, fourth and sixth Titles of Book 4 of the Code, and on the Merchant Shipping Act.
3 A commentary on the Bank Act.

Civil Procedure, II.

PROFESSOR:—HON. C. J. DOHERTY, D.C.L.

The advanced course for the Second and Third Years covers all matters of procedure not dealt with in the First Year course, and includes trial, provisional remedies, such as capias, attachment before judgment, injunction, etc., and spe-

cial proceedings, such as proceedings relating to corporations, and public offices, mandamus, etc., as well as the rules of pleading in the more complicated classes of action. It will be divided into two parts, which will be taken in alternate years.

Marriage Covenants and Minor Contracts, Prescription, Lease, and Municipal Law.

PROFESSOR:—A. GEOFFRION, B.C.L., K.C.

Two courses—in alternate years.

Successions, Gifts and Substitutions.

PROFESSOR:—HON. C. J. DOHERTY, D.C.L.

Two courses—in alternate years.

I. The Law of Succession.

The course consists of a commentary and explanation of the whole of Title I, and the Third Chapter of Title II of the Third Book of the Civil Code. The order followed by the Code in dealing with the different matters coming within the scope of this course, has however been departed from, with a view of presenting to the student the law governing successions as one whole. The subject will be developed as nearly as possible in the following order:—

(1) General notions, definitions, and divisions of the subject; (2) the testamentary succession; (3) the ab-intestate succession; (4) rules of law common to both successions; (5) rules peculiar to the testamentary succession; (6) rules peculiar to the ab-intestate succession; (7) partition of the succession (and of property held in undivided ownership generally), its incidents and effects.

II. Gifts and Substitutions.

This course comprises a commentary on and explanation of Chapters I, II, and IV of Title II of the Third Book of the Civil Code, dealing with:

(1) Gifts inter vivos; (2) gifts in contemplation of death, as permitted in contracts of marriage; (3) substitutions.

Real Property Law and Registration.

PROFESSOR:—W. DE M. MARLER, B.A., D.C.L.

First Year Course—25 lectures.

Registration of Real rights—its objects; modes of registration; effect; the cadastral system.

Second and Third Year Courses—50 Lectures, in alternate Courses.

First Course: — Mode of acquisition of immoveables—25 lectures.

In this course, a deed of sale will be analyzed and its various clauses explained: the parties; the description and the measurement of land; the obligations of buyer and seller and the security for their performance; warranty, its modifications and results; the form and registration of the deed; the rights of the wife; the distinctions between sale and other modes of acquisition, and their effects on the parties; forced sales, their incidents and results; examination of titles, practically considered.

Second Course:—Privileges and hypothecs; servitudes—25 lectures.

Debts and causes of preference; characteristics of hypothecs—the various kinds, their history, conditions and effects; the ranking of hypothecs; the hypothecary action, its characteristics, incidents and results; privileges on immoveables; registration of privileges and hypothecs; servitudes—natural, legal and conventional; water courses and streams; walls and fences.

Public International Law.

PROFESSOR:—E. LAFLEUR, B.A., D.C.L., K.C.

Sovereignty and equality of independent states; recognition of belligerency and independence; justifiable grounds of intervention; modes of territorial acquisition; territorial boundaries; doctrine of exterritoriality; treaties and arbitrations; laws of war; neutrality of states and of individuals; laws of

blockade; contraband; confiscation; prize-courts and their jurisprudence.

The students' attention will be specially directed to treaties, diplomatic relations, and international arbitrations, in which Canada is directly concerned.

Private International Law.

PROFESSOR:—E. LAFLEUR, B.A., D.C.L., K.C.

Distinction between the *a priori* and positive methods; sources of the positive law of Quebec on the subjects; application and illustrations of the rules for solving conflicts of law in regard to the different titles of the Civil Code; comparisons between our jurisprudence and that of England, France and Germany.

These two courses will be given in alternate years.

Pleading and Practice.

LECTURER:—E. FABRE SURVEYER, B.A. (Laval), B.C.L.

This course of lectures deals with the different species of actions, their institution, the summoning of defendants and the pleadings necessary to complete the issues (C. P., 76 to 219); the most usual incidents, such as interventions (220 to 224), and continuance of suits (266 to 274); procedure in uncontested cases (418 to 420, and 532 to 535); amendments (513 to 526); putting in security (559 to 565); oppositions to the sale of moveables (644 to 654); oppositions for payment (670 to 676); cases of coercive imprisonment (832 to 836); abandonment of property (849 to 892); provisional measures (893 to 977); exemptions from seizure (598, 599, 1089); procedure before the Circuit Court (1126 to 1149), and in summary matters (1150 to 1162), and recourses against judgments (1163 to 1188).

It includes the schedules and rules of practice referring to the above mentioned articles, and forms of the most common kinds of pleadings.

Evidence.

LECTURER:—ARNOLD WAINWRIGHT, B.A., B.C.L.

This course consists of an explanation of the main principles and rules of evidence in the civil and commercial matters governed by the provisions of the Civil Code.

The opening lectures will be devoted to an examination of the general principles regulating the proof of facts involved in judicial investigations relating to such matters. This will be followed by an analysis of the different kinds of evidence by means of which these facts may be proved, with an explanation of the special rules applicable to each kind. The concluding lectures will deal with the manner of producing evidence, with special reference to the examination and cross-examination of witnesses.

In the course of the lectures articles 1203 to 1244 of the Civil Code, and such articles of the Code of Civil Procedure as relate to the subject of Evidence, will be commented upon and explained.

REQUIREMENTS FOR THE DEGREE OF D.C.L.

(*Adopted March*, 1891.)

Every candidate for the degree of D.C.L., in Course, must be a Bachelor of Civil Law of twelve years' standing, and must pass such examination for the degree of D.C.L. as shall be prescribed by the Faculty of Law. He shall also, at least two months before proceeding to the Degree, deliver to the Faculty twenty-five printed copies of a thesis or treatise of his own composition on some subject, selected or approved by the Faculty, such thesis to contain not less than fifty octavo pages of printed matter, and to possess such degree of merit as shall, in the opinion of the Faculty, justify them in recommending him for the Degree.

The examination for the Degree of D.C.L., in Course, shall, until changed, be on the following subjects and authors, with the requirement of special proficiency in some one of the groups below indicated. In the groups other than the one selected by the candidate for special proficiency, a thorough

acquaintance with two works of each group shall be sufficient, including in all cases the work first mentioned in each group and the first two works in the third group. In the first group one work on Public and one on Private International Law must be offered.

1. International Law.

A. Public:—
Twiss, Sir T., Law of Nations.
Hall, W. E., International Law.
Harcourt, Sir W. V., Letters by *Historicus*.
Ortolan, T., Diplomatie de la Mer
De Martens, Droit International.
Holland, Studies in International Law.

B. Private:—
Savigny, Private International Law (Ed. Guthrie).
Bar, Private International Law (Ed. Gillespie).
Foelix, Droit International Privé.
Laurent, Droit Civil International.
Brocher, Droit International Privé.
Fiore, Droit International Privé (Ed. Pradier-Fodéré).
Dicey, Conflict of Laws.
Story, Conflict of Laws.
Lafleur, E., Conflict of Laws.

2. Roman Law.

Maynz, Droit Romain.
Muirhead's Roman Law.
Girard, Manuel de Droit Romain.
Ortolan's Institutes (Ed. Labbé).
Savigny, Roman Law in the Middle Ages.
Cuq, Les Institutions Juridiques.
Puchta, Institutionen.
Krüger, Römische Rechtsquellen.
Roby's Introduction to the Digest.
Hunter's Roman Law.

3. Constitutional History and Law.

Dicey's Law of the Constitution.
Stubbs' Constitutional Law of England.
Hearn, Government of England.
Bagehot, English Constitution.
Franqueville, Gouvernement et Parlement Britanniques.
Gneist, Constitution of England.
Hallam, Constitutional History of England.
May, Constitutional History of England.
Gardiner, Constitutional History of England.
Freeman, Growth of the English Constitution.
Mill, Representative Government.
Anson, Law and Custom of the Constitution.

4. Constitution of Canada and Works Relevant Thereto.

Todd, Parliamentary Government in the British Colonies.
Bourinot, Federal Government in Canada.
Cartwright, Cases under the British North America Act.
Lord Durham's Report on British North America.
Lareau, Histoire du Droit Canadien.
Houston's Constitutional Documents of Canada.
Volume O., Statutes of Lower Canada.
Maseres' Collection of Quebec Commissions.
Viollet, Histoire du Droit Français.
Dilke, Problems of Greater Britain.
Bryce, American Commonwealth.
Cooley, Principles of Constitutional Law.
Curtis, History of the Constitution of the United States.

5. Criminal Law, Jurisprudence, and Political Science.

Stephen, History of the Criminal Law.
Blackstone, Vol. IV.
Harris, Principles of Criminal Law.
Holland, Elements of Jurisprudence.
Salmond's Jurisprudence.
Austin, Lectures, omitting chapters on Utilitarianism.
Lorimer's Institutes.
Amos, Science of Law.
Woolsey, Political Ethics.
Lieber, Political Ethics.
Freeman, Comparative Politics.
Aristotle's Politics, by Jowett.

APPENDIX.

The attention of intending students is called to the following provisions of the Revised Statutes of Quebec and amendments, as bearing on the requirements for the study and practice of Law in the Province.

I. Regulations Applicable to those who Intend to Become Members of the Bar.

Article 3544 R.S.Q.—Examinations for admission to study and to practise law in the Province of Quebec are held at the time and place determined by the General Council.

The examinations for the practice are held alternately in Montreal and Quebec every six months, namely—at Montreal, on the second Tuesday of each January, and at Quebec on the first Tuesday of each July.

All information concerning all these examinations can be obtained from the General Secretary's Office. The present General Secretary is Arthur Globensky, Esq., K.C., 97 St. James St., Montreal.

Article 3546.—Candidates must give notice as prescribed by this article at least one month for the study and fifteen days for the practice before the time fixed for the examination to the Secretary of the Section in which he has his domicile or in which he has resided for the past six months.

Article 3503a (added by Statute of Quebec, 1890, 53 Victoria, Cap. 45).—This article provides that candidates holding the diploma of Bachelor of Arts, Bachelier-ès-Lettres, or Bachelier-ès-Sciences from a Canadian or other British University are dispensed from the examination for admission to study. Such candidates are required to give the notice mentioned above.

Article 3548 R.S.Q. (as altered by by-law of the General Council).—On giving the notice prescribed by Article 3546, the candidate pays the Secretary a fee of $2, and makes a deposit of $105 for a complete certificate of admission to study; of $70 for a partial certificate of admission to study; and of $180 for admission to practice, which deposit, less $10, is returned in case of his not being admitted.

Article 3552 (amended 1894, Q. 57 Vic., c. 35)—To be admitted to practice, the student must be a British subject, and must have studied regularly and without interruption during ordinary office hours, under indentures before a notary as clerk, or student with a practising advocate, during four years, *dating from the registration of the certificate of admission to study*. This term is reduced to three years in the case of a student who has followed a regular Law Course in a university or college in this Province and taken a Degree in Law therein.

The by-laws passed by the General Council of the Bar of the Province of Quebec, 16th Sept., 1886, and amended 10th Feb., 1892, provide as follows:—

Art. 42.—A course of lectures on Law given and followed at a university or college in this Province, and a Diploma or Degree conferred on students by such university or college, shall be held to be such as contemplated in Art. 3552 R.S.Q. only when the university or college conferring the Degree and the student who receives it shall have efficiently followed the programme herein set forth.

The subjects on which lectures shall be given, and the number of lectures required on each subject for a regular course of lectures on law in a university or college shall be as follows:—

ROMAN LAW:—103 lectures:—This subject shall include an introduction to the study of Law and the explanation of and comments on the Institutes of Justinian and the principal jurisconsults of Rome.

CIVIL, COMMERCIAL, AND MARITIME LAW:—413 lectures:—Lectures on these subjects shall cover at least three years. They consist of the history of French and Canadian law, the explanation of and comments on the Civil Code of the Province of Quebec and the statutes relating to Commerce and Merchant Shipping.

CIVIL PROCEDURE:—103 lectures:—Lectures on this subject shall extend over at least two years. It shall consist of the explanation of and comments on the Code of Civil Procedure and the statutes amending it, the organization of the Civil Courts of this Province and the history of the different judicial systems of the country; also, the special modes of procedure provided by statutes and laws of general application.

INTERNATIONAL LAW, Private and Public:—21 lectures.

CRIMINAL LAW:—69 lectures:—This subject includes the history of criminal law in Canada, the constitution of criminal courts, criminal procedure, comments on statutes relating to criminal law, the relation of criminal law in Canada to the criminal law of England. The lectures shall extend over two years.

ADMINISTRATIVE AND CONSTITUTIONAL LAW:— 41 lectures. —These subjects include an inquiry into the different political

institutions and the public institutions of the country, the powers, organization and procedure of the Federal Parliament and of the Local Legislature, the laws on Education and the Municipal Code.

Art. 43.—Candidates for practice who hold a Degree in Law from a university or college in this Province shall produce with their notices a certificate from the principal or rector of such university or college to the effect that they followed a course of lectures on Law in the same, during at least three years, in conformity with the by-laws of the Bar; and such certificate shall further specify the number of public lectures at which they shall have attended on each subject mentioned in the foregoing programme, during each of the said three years. The last part of this certificate shall only be required for courses of lectures given after the 1st January, 1897.

Art. 44.—The examiners shall not consider a university Degree in Law valid for the purposes of admission to the Bar if they find that the candidate has not in fact followed the programme above.

II. Regulations Applicable to those who Intend to Become Notaries.

For the regulations applicable to the candidates for the Notarial Profession, see Revised Statutes of Quebec, Arts. 3801-3833, and 53 Vict., c. 45 (Que.).

SPECIAL INFORMATION REGARDING THE FACULTY OF MEDICINE.*

THE SEVENTY-EIGHTH SESSION OF THE FACULTY OF MEDICINE WILL OPEN ON MONDAY, OCTOBER 4TH, 1909. THE INTRODUCTORY LECTURE WILL BE GIVEN ON FRIDAY, THE 1ST. STUDENTS MAY REGISTER ON AND AFTER SEPTEMBER 23RD.

Particulars regarding the following matters will be found on the pages named:—

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Double Courses (seven years for Degrees of B.A. or B.Sc. and M.D.)	107
Fees	68
Length of Course	10
Matriculation	26
Medals and Prizes	63
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FOUNDATION AND HISTORY.

The Faculty of Medicine of McGill University is the direct outcome of the Montreal Medical Institution which was opened in November, 1824.

In the year 1829 the Montreal Medical Institution became, by a formal act of the Governors of the Royal Institution for the Advancement of Learning, the Medical Faculty of McGill University.

In 1872, the Faculty moved to a building on the University Grounds.

This building was enlarged in 1885, and again through the generosity of Mr. John H. R. Molson, in 1895. In less than five years further enlargement was found to be necessary.

* Fuller information is given in the separate Calendar issued by the Faculty which can be obtained on application to the Medical Registrar.

This was rendered possible through the generosity of Lord Strathcona who, in 1898 contributed, in the names of Lady Strathcona and the Hon. Mrs. Howard, $100,000 towards the necessary extensions and alterations. The new buildings were formally opened by H. R. H. the Prince of Wales on September 19th, 1901.

On April 16th, 1907, the greater part of these buildings was destroyed by fire, and a more commodious and up-to-date structure is now being erected on a new site. When completed, at a cost of considerably over half a million dollars, it will rank among the best of such buildings on the Continent. In the meantime work is being carried on without any loss of efficiency, in the portion of the old building which was saved, in other university buildings and in the lecture theatres of the Royal Victoria and General Hospitals.

MATRICULATION.

The University Matriculation requirements are stated on pages 26 and 29 to 34.

Intending students are reminded that a Degree in Medicine does not give a right to practise.

Each province in Canada has special regulations in this connection. In most of them a standard of general education is insisted on as a preliminary. If possible, therefore, a student should register with the Medical Council of the province in which he intends to practise, before entering on the study of Medicine proper. A certificate of such registration will exempt the holder from any further examination for entrance to this University.

The Registrars of the Medical Councils in the several provinces, from whom full particulars regarding admission to study can be obtained, are as follows:—

QUEBEC.—Dr. J. A. MacDonald, 250 Mountain St., Montreal and Dr. C. R. Paquin, Quebec, P.Q.

ONTARIO.—Dr. J. L. Bray, 81 Isabella St., Toronto.

NEW BRUNSWICK.—Dr. Stewart Skinner, St. John.

NOVA SCOTIA.—Dr. A. W. H. Lindsay, 241 Pleasant Street, Halifax.

PRINCE EDWARD ISLAND.—Dr. S. R. Jenkins, Charlottetown.

MANITOBA.—Dr. J. S. Gray, 358 Hargrave St., Winnipeg.

ALBERTA.—Dr. J. D. Lafferty, Calgary, Alta.

SASKATCHEWAN.———————

BRITISH COLUMBIA.—Dr. C. J. Fagan, Victoria.

The Registrar of the Medical Council in Newfoundland is Dr. H. Rendell, St. John's.

FELLOWSHIPS.

Teaching and Research Fellowships are being established in connection with the various laboratories.

These fellowships are of the value of five hundred dollars per annum, are open only to graduates in Medicine, and are tenable for three years.

Two are now established in connection with the department of Pathology—a Governor's Fellowship, endowed by one or two of the Governors of the University, and a Faculty Fellowship, established by the Faculty.

REGULATIONS FOR THE DEGREE OF M.D., C.M.*

1. No one will be admitted to the degree of Doctor of Medicine and Master of Surgery who shall not have attended lectures for a period of five eight month sessions in this University, or some other university, college or school of medicine, approved by this University.

2. Students of other universities, so approved, who may be admitted on production of certificates to a like standing in this University shall be required to pass all examinations in Primary and Final Subjects in the same manner as students of this University.

* It should be understood that the programme and regulations regarding courses of study and examinations contained in this Calendar hold good for this calendar year only, and that the Faculty of Medicine, while fully sensible of its obligations towards the students, does not hold itself bound to adhere absolutely. for the whole four years of a student's course, to the conditions here laid down.

3. Graduates in Arts who have taken two full courses in General Chemistry, including laboratory work, two courses in Biology, including the subjects of Botany, Embryology, and the dissection of one or more types of Vertebrata, may, at the discretion of the Faculty, be admitted as Second Year students, such courses being accepted as equivalent to the First Year in Medicine. Students so entering will, however, not be allowed to present themselves for the final examination in Anatomy until they produce certificates of dissection for two sessions.

4. Candidates for the final examination shall furnish testimonials of attendance on the following branches of medical education; provided, however, that testimonials equivalent to, though not precisely the same as those above stated, may be presented and accepted;—

Anatomy. Practical Anatomy. Physiology. Practical Physiology. Chemistry. Pharmacology and Therapeutics. Principles and Practice of Surgery. Obstetrics and Diseases of Infants. Gynæcology. Theory and Practice of Medicine. Clinical Medicine. Clinical Surgery.	Of which two full courses will be required.
Biology. Medical Jurisprudence. General Pathology. Histology. Hygiene and Public Health. Practical Chemistry. Ophthalmology and Otology.	Of which one full course will be required.
Medical Physics. Clinical Chemistry. Biological Chemistry. Pathological Anatomy. Bacteriology. Mental Diseases. Pediatrics. Medical and Surgical Anatomy.	Of which one course will be required.

He must also produce certificates of having assisted at six autopsies, of having dispensed medicine for a period of three months, of having assisted at twenty vaccinations, and of having, under the direction of a properly qualified anæsthetist, administered an anæsthetic at least twice.

Courses of less length than the above will only be received for the time over which they have extended.

5. No one will be permitted to become a candidate for the Degree who shall not have attended at least one full session at this University.

6. Candidates must give proof of having attended, during at least twenty-four months, the practice of the Montreal General Hospital or the Royal Victoria Hospital, or of some other hospital of not fewer than 100 beds, approved by this University. Undergraduates are required to attend only the practice of the Out-Patient Departments of the Hospital during their Third Year.

7. He must give proof of having acted as clinical clerk for six months in medicine and six months in surgery in the wards of a general hospital recognized by the Faculty, and of having reported at least ten medical and ten surgical cases.

8. He must also give proof by ticket of having attended for at least nine months the practice of the Montreal Maternity, or other lying-in-hospital approved of by the University, and of having acted as assistant for at least six cases.

9. Every candidate for the Degree must, on or before the 20th day of April, present to the Registrar of the Medical Faculty testimonials of his qualifications, entitling him to an examination, and must at the same time deliver to the Registrar of the Faculty an affirmation or affidavit that he has attained the age of twenty-one years.

10. The following oath or affirmation will be exacted from the candidate before receiving his Degree:

Sponsio Academica.

In Facultate Medicinæ Universitatis.

Ego, A——— B———, Doctoratus in Arte Medica titulo jam donandus, sancto coram Deo cordium scrutatore, spondeo:—me in omnibus

grati animi officiis erga hanc Universitatem ad extremum vitæ halitum perserveraturum; tum porro artem medicam caute, caste, et probe exercitaturum; et quoad in me est, omnia ad ægrotorum corporum salutem conducentia cum fide procuraturum; quæ denique inter medendum visa vel audita silere conveniat, non sine gravi causa vulgaturum. Ita praesens mihi spondenti adsit Numen.

EXAMINATIONS.

Frequent oral examinations are held to test the progress of the student, and occasional written examinations are given throughout the session.

The Pass and Honour Examinations at the close of each Session are arranged as follows:—

First Year.

Examinations in Biology (including Embryology and Elementary Bacteriology), Anatomy, Medical Physics, Inorganic Chemistry, Practical Chemistry and Histology.

Students who have taken one or more University courses in Biology or Chemistry before entering may be exempted from attendance and examination. Students exempted in these First Year subjects are allowed only a pass standing, but may present themselves for examination if they desire to attain an honour standing. Students exempted from First Year Chemistry must take Second Year Chemistry, in their First-year.

Second Year.

Examinations in Anatomy, Physiology, Organic and Biological Chemistry, Histology and Pharmacy.

Third Year.

Examinations in Physiology, Physiological Chemistry, Pharmacology, General Pathology, Bacteriology, Clinical Medicine and Clinical Surgery.

Fourth Year.

Examinations in Medicine, Surgery, Obstetrics, Pharmacology and Therapeutics, Medical and Surgical Anatomy.

Fifth Year.

Examinations in Medicine, Surgery Gynæcology, Clinical Medicine, Clinical Surgery, Obstetrics, Ophthalmology, Oto-Laryngology, Hygiene, Medical Jurisprudence, Mental Diseases.

By means of the above arrangement a certain definite amount of work must be accomplished by the student in each year, and an equitable division is made between the Primary and Final branches.

A minimum of 50 per cent. in each subject is required to pass and 75 per cent. for honours.

Candidates who fail at the regular examinations in not more than two subjects of the First, Second, Third, or Fourth Years, may take the supplemental examinations before the beginning of the following Session. These examinations will be held during the week preceding the regular opening of the Session.

Students who fail in both Physiology and Anatomy at the end of the second year are required to repeat their year.

Failure in more than two subjects at the regular examinations excludes the candidate from further examination and necessitates his repeating the work in the subjects in which he has failed.

Candidates who fail to pass in a subject in which practical work is required may, at the discretion of the examiner, be required to repeat the course and furnish a certificate of attendance thereon.

Students who fail in one subject only of the Final Year may, at the discretion of the Faculty, be allowed a supplemental examination in that subject. Should the subject be one in which practical or clinical work is required, the student must furnish a certificate of additional hospital attendance or laboratory work before presenting himself for examination.

Students who fail at the examinations held at Christmas may, at the discretion of the examiners, be granted supplemental examinations at a period not less than three months after the regular examination.

Applications for supplemental examinations must be in the hands of the Registrar at least three days before the date set for the beginning of the examination and they must be accompanied by a fee of $5.00 for each subject.

COURSES OF LECTURES.

General Statement and Plan of Instruction.

The period of study for the degree of Doctor of Medicine and Master of Surgery has been increased to five sessions of eight months each. This step has been taken by the Faculty only after a careful study of the requirements of a modern medical education. The crowded state of the curriculum under the old four year system made it difficult for a student to do more than attend the required number of lectures, clinics and demonstrations, leaving little time for reading and none at all for recreation. With the additional year, by a re-arrangement of the curriculum, more time will be given to the fundamental subjects of Chemistry and Biology, while a thorough grounding will be given in the important subjects of Anatomy, Physiology, Pharmacology and Histology. The teaching in these branches as well as in Pathology and Bacteriology is largely conducted in the well equipped laboratories of the College. The greater part of the added year is devoted to clinical instruction as in addition to the time provided in the Third and Fourth Years, the Fifth Year will be given over almost wholly to clinical work in the wards of the hospitals. As a field for clinical study the wards of the Montreal hospitals afford opportunity not surpassed even in the large centres of Europe, and the fact that the clinical professors in the University are the attending physicians and surgeons of these hospitals makes it possible for our students to take full advantage of this wealth of clinical material.

Under the new arrangement of the curriculum the subjects will be taken up as indicated on page 280.

ANATOMY.

PROFESSOR:—FRANCIS J. SHEPHERD, M.D., LL.D.
ASSISTANT PROFESSOR:—J. G. McCARTHY, M.D.
LECTURER:—J. A. HENDERSON, M.D.

DEMONSTRATORS:—
J. J. ROSS, B.A., M.D.
A. E. ORR, M.D.
R. A. WESTLEY, M.D.
H. M. CHURCH, M.D.
C. K. P. HENRY, M.D.

ASSISTANT DEMONSTRATORS:—
J. A. NUTTER, B.A., M.D.
J. W. HUTCHINSON, M.D.

Anatomy is taught in the most practical manner possible and its relation to Medicine and Surgery fully considered. The lectures are illustrated by the fresh subject, moist and dry preparations, sections, models, plates and drawings on the blackboard. Frequent examinations are also held.

A course of practical demonstrations in medical, surgical and topographical Anatomy is also given in the Fourth Year of the course.

The department of *Practical Anatomy* is under the direct control and personal supervision of the Professor of Anatomy, assisted by his staff of Demonstrators.

The methods of teaching are similar to those of the best European schools, and students are thoroughly grounded in this branch.

Every student must be examined *at least* three times on each part dissected, and no certificate is given unless the examinations are satisfactory.

Special demonstrations on the brain, thorax, abdomen, bones, etc., are frequently given. Prizes are awarded at the end of the session for the best examination on the fresh subject.

The Dissecting Room is open from 9 a.m. to 6 p.m. In consequence of the excellent Anatomy Act of the Province of Quebec, abundance of material can always be obtained.

MEDICAL CHEMISTRY AND PHYSICS.

PROFESSOR OF ORGANIC AND BIOLOGICAL CHEMISTRY:—R. F. RUTTAN, B.A., M.D.

LECTURER:—LOUIS BAUMANN, M.D.

DEMONSTRATORS IN GENERAL CHEMISTRY:—A. O. HAYES, B.Sc. V. K. KRIEBLE, B.Sc.

DEMONSTRATOR IN CLINICAL CHEMISTRY:—CAMPBELL P. HOWARD, B.A., M.D.

PROFESSOR OF PHYSICS:—H. T. BARNES, D.Sc.

DEMONSTRATOR OF MEDICAL PHYSICS:—F. H. DAY, B.Sc.

PHYSICS.

Instruction in Elementary Physics for students in Medicine is given in the Physics Building of the University.

This is a course for students of the First Year and consists of three lectures and one laboratory period per week for the autumn term. The experimental lectures as well as the laboratory work, have been especially planned to meet the requirements of students in Medicine. An examination on the work of the term is held at Christmas.

CHEMISTRY.

Instruction in Chemistry for students in Medicine is given during a portion of each of the first three years.

First Year: During the Autumn Term the principles governing chemical action are studied in a systematic laboratory course. A printed synopsis of the work of each day is provided and necessary explanations given before beginning the work. The course includes a study of chemical phenomena; the preparation and properties of typical elements and compounds; the laws of chemical action; gravimetric and volumetric determinations, and a short course in qualitative analysis. The student is required to pay special attention to the keeping of an accurate record of his observations and calculations. Note books for this purpose are provided and are examined and criticised by the demonstrators. An examination is held at Christmas.

During the second term of the First Year a course of experimental lectures in general chemistry is given; three per week with frequent reviews and examinations. This course is designed to familiarize the student with the characteristics of chemical action and the conditions which modify it, rather than a detailed study of the preparation and properties of the elements and their compounds. The application of chemistry to physiology and pathology is made especially prominent. An examination in general chemistry is held at the end of the first session.

Second Year: A course of three lectures per week on organic and biological chemistry is given during the whole session. In this course the facts and theories of organic and physical chemistry, which have an essential bearing upon medical science, are first presented in the simplest form. This is followed by a more detailed study of those organic compounds and reactions which pertain to the phenomena of life. From Christmas to April laboratory work in organic and biological chemistry, two periods per week, will be given. In this course the student will study practically the chemistry of the more important organic substances which are found in the tissues, together with the chemical and physical conditions which influence their production. This course is intended to lead up to and partly include the subject matter of the usual courses in physiological and pathological chemistry.

The course includes a study of the carbon, nitrogen and energy cycles in nature; enzymes and catalysis; esterification; fats and lipoids; carbohydrates; amino acids; proteins; protein toxins; nuclein and purin bodies; urea; creatinin; indol, etc.; together with the application of elementary physical chemistry to the problems of medicine and biology.

Third Year: A laboratory course of about four weeks in clinical chemistry is given to students at the end of their third year. In this course the student is made familiar with the more convenient and practical methods for the chemical and physical examination of urine, fæces, blood, stomach contents, etc., as a preliminary to their application to cases in the hos-

pitals. In addition, exercises are given in the detection of certain poisons, food preservatives, etc., which are of easy application by the general practitioner.

An advanced optional laboratory course in clinical and biological chemistry will be given at the end of the Third Year to those students whose preliminary training in chemistry and standing in the pass courses show they are able to profit by it. This course will include the more recent exact methods of determination of creatinin, ammonia, acetone, etc., in urine, Kjeldahl determinations of nitrogen, cryoscopic determinations of fluids, etc., and must be taken by all candidates for the Sutherland medal.

Students will find it greatly to their advantage to have a practical knowledge of elementary chemistry before entering upon the study of Medicine. Graduates in arts of recognized universities, on presenting certificates of having taken courses in theoretical and practical chemistry, and of having passed examinations in the same, may be exempted from the chemistry of the First Year.

PHYSIOLOGY.

THE JOSEPH MORLEY DRAKE PROFESSOR:—T. WESLEY MILLS, M.A., M.D.
ASSISTANT PROFESSOR:—W S. MORROW, M.D.

LECTURERS:— { A. A. ROBERTSON, B.A., M.D.
A. H. GORDON, M.D.

DEMONSTRATORS:— { W. B. HOWELL, M.D.
T. P. SHAW, M.D.

ASSISTANT DEMONSTRATOR:—A. L. C. GILDAY, B.A., M.D.

The purpose of this course is to make the student thoroughly acquainted, as far as time permits, with modern Physiology—its methods, its deductions, and the basis on which the latter rest. Accordingly a full course of lectures extending over two years is given, in which the physical, the chemical, and other aspects of the subject receive attention.

In addition to the use of diagrams, models, lantern demonstrations, etc., every department of the subject is illustrated by experiment. An ample supply of apparatus is available for demonstration purposes and is being added to from year

to year so that the department may be kept fully abreast of the times.

The physiological laboratory is fitted up so as to permit of eighty students engaging in work at one time. The fittings and equipment of each bench are of the latest design and are well adapted to their purpose. An elaborate electrical equipment permits of all the various currents required for physiological experiments being supplied to each bench. The apparatus was constructed by the best American and European makers and was thoroughly tested before being accepted.

During recent years the laboratory work for students has been entirely rearranged. Since the session of 1901-02, when over three thousand dollars worth of new apparatus was purchased, there has been a steady advance which still continues. The practical work, like the lectures, now extends over two years. Each group of two students is supplied with all the apparatus necessary to carry out the work of verifying a large number of leading principles of physiology and registering the results by the graphic method.

Provision is also made for a course in chemical physiology, covering foodstuffs, digestion, the animal fluids, etc. This course will be considerably extended in the near future in view of the increasing importance of chemical physiology in practical medicine.

Throughout the whole course the needs of the future practitioner of scientific medicine are kept in view.

HISTOLOGY.

LECTURER AND DIRECTOR OF THE HISTOLOGICAL LABORATORY:—

S. B. WOLBACH, M.D.

LECTURER:—WALTER M. FISK, M.D.

The teaching of histology and histological methods extends throughout the First and Second Years. Lantern projections of stained microscopic sections will be made use of to demonstrate the normal tissues and their relations.

In the first year the students' work will commence immediately after the Christmas holidays and will continue to the end of the session. The first part of the course will consist in practical instruction upon histological technique: the second part will be devoted to the study of cytology and the more elementary tissues of the human body. Lectures will be given on elementary histology. At the end of the session a written and a practical examination will be held.

During the second year the student will study and make drawings from specimens which have already been prepared. Preceding each day's work there will be a lantern demonstration of the specimens to be allotted. Lectures will be given on advanced histology and a written and practical examination will be held at Christmas.

BIOLOGY.

PROFESSORS:— { D. P. PENHALLOW, D.Sc., PROFESSOR OF BOTANY.
{ ——————, PROFESSOR OF ZOOLOGY.

The course in elementary Biology is designed to prepare for special study in medical subjects. It consists of two concurrent courses in Plant and Animal Biology given under the supervision of the Professors of Botany and Zoology respectively.

A.—PLANT BIOLOGY.

(1) The course in Plant Biology is designed to introduce the student to a knowledge of such elementary structures and activities, and to a discussion of such biological principles as will not only assist in a broader interpretation of the facts connected with animal life, but will be of service in the further prosecution of medical studies from a biological point of view. It will therefore deal with the structure of the plant cell in comparison with the animal cell, and establish the essential features of cytoplasm and nucleus; the functions of respiration and the distinction between ærobic and anærobic respiration; the storage of energy by green plants and the general features of constructive metabolism; the utilization of

energy as exemplified by leucophytes, and the general characteristics of destructive metabolism or catabolism; the division of labour and the origin of organs; the origin and significance of sex with a discussion of parthenogenesis; the general principles of plant evolution.

These studies will be illustrated by the practical examination of a series of carefully selected types.

Two lectures and two laboratory periods each week throughout the autumn term.

(2) An elementary course in the morphology and physiology of the bacteria for students of the First Year, designed to furnish a preparation for the more advanced course in bacteriology given in the Third Year.

Twelve lectures during the month of April.

The practical portion of the work will be given by the Department of Bacteriology.

B.—Animal Biology (Including Embryology).

This course consists of a study of the fundamental properties of protoplasm; the principles of the formation of tissues and organs; an outline of vertebrate structure and function, including a more detailed study of mammalian anatomy and osteology. The types studied are Amœba, Paramœcium, a Flagellate, Hydra, Lumbricus, Amphioxus, Scyllium (the English dog-fish), Rana and Lepus. In the case of the last type special attention will be given to the osteology.

The portion of the course devoted to comparative anatomy is followed by one on embryology. In this the following subjects will be dealt with:—The essential nature of the egg and spermatozoon; chromosomes, centrosomes and the maturation division; the segmentation of the egg and the simplest type of the differentiation of the primary embryonic layers, as illustrated by the early development of *Echinus;* the simplest type of vertebrate development, as illustrated by *Amphioxus;* the effect of the progressive accumulation of food yolk in hindering and modifying early development, as illustrated by

the frog, the dog-fish, the gecko, and the chick; the formation of vertebrate organs, as illustrated by the chick; the development of special relations between the mammalian egg and the womb, as illustrated by the rabbit, the dog, the sheep, the lemur and man; finally, the special peculiarities of the development of the human organs.

Two lectures and two laboratory periods throughout the Session, from October to May.

A special fee of $2.50 is charged against the caution money of each student attending the course in Animal Biology in order to cover the cost of instruments and laboratory note books supplied him.

PATHOLOGY, BACTERIOLOGY AND PARASITOLOGY.

PROFESSOR:—J. G. ADAMI, M.A., M.D., LL.D., F.R.S.
ASSOCIATE PROFESSOR OF PARASITOLOGY:—J. L. TODD, M.D., D.Sc.
ASSISTANT PROFESSOR:—A. G. NICHOLLS, M.D., D.Sc.
LECTURERS IN PATHOLOGY:—JOHN MCCRAE, M.A., M.B. (Toronto). OSKAR KLOTZ, M.B. (Toronto), M.D. S. B. WOLBACH, M.D.
LECTURER IN BACTERIOLOGY:—H. B. YATES, B.A., M.D.
DEMONSTRATORS IN PATHOLOGY:—R. P. CAMPBELL, M.D. W. W. FRANCIS, M.D
DEMONSTRATORS IN BACTERIOLOGY:—S. H. McKEE, M.D. W. H. DONNELLY, M.D.
ASST. DEMONSTRATOR IN BACTERIOLOGY:—A. C. RANKIN, M.D.

Owing to the change in the Fourth and Fifth Year courses, some modification has been required in the teaching. The following courses are subject to revision:—

PATHOLOGY.

1. A course in General Pathology to students of the Third Year. Lectures are delivered three times weekly throughout the winter and spring terms.

2. A course of demonstrations and the performance of autopsies for students of the Third Year. These demonstrations are held weekly from October until Christmas.

3. Demonstrations upon the autopsies of the week to students of the two final years. These will be given during

the session by Drs. McCrae and Klotz at the Royal Victoria Hospital, and Dr. Wolbach at the Montreal General Hospital.

4. The performance of autopsies. Each student is required to take an active part in at least six autopsies. These are conducted at the General and the Royal Victoria Hospitals. In addition to the actual performance of the *sectio cadaveris*, the students are expected to attend practical instruction given with each autopsy in the method of preparation and microscopical examination of removed tissues, so as to become proficient in the methods of preparation, staining and mounting.

5. Practical course in Morbid Histology to students of the Third Year: two periods of two hours each, given weekly during winter term. Students are instructed in the staining and mounting of specimens. Following upon this, in order that the student may make the fullest study of the material, and not spend most of his time in the mechanical processes of preparing it, at each period some five or six mounted sections are distributed to each; lantern demonstrations are given of the main features of the series, and the student is expected to make drawings of the salient features of each specimen..

6. A course in Special Pathology with demonstration of Museum specimens and oral examinations; twice weekly during the winter and spring terms to students of the Fourth Year.

In addition to the above, the staff of the department gives instruction to more advanced students who desire to undertake special work in the laboratories: this more especially during the vacations.

Throughout the year the Curator of the Museum, Dr. M. E. Abbott, and Dr. W. W. Francis, conduct a series of Museum demonstrations to students of the Third and Fourth Years in groups of twelve. The classes in Clinical Pathology and Microscopy are described in connection with the Department of Clinical Medicine.

In connection with this Department a Research and Teaching Fellowship has been established by certain Governors of the University.

Bacteriology.

1. A Course of lectures upon Elementary Bacteriology for students of the First Year, delivered by Professor Penhallow.

2. A course of lectures upon Bacteriology in relation to disease, for students of the Third Year. Lectures three times weekly during the autumn term.

3. A practical course upon bacteriological technique and the preparation of bacteriological media to students of the First Year in the spring term. This is conducted in connection with Professor Penhallow's lectures upon Elementary Bacteriology.

3. A practical course upon the bacteriology of infectious diseases for students of the Third Year: two periods of two hours each per week during the autumn term. The object of this course is to familiarize the student with the characters of the more common pathogenic bacteria and more particularly to render him proficient in the employment of the methods of clinical bacteriological diagnosis.

Parasitology.

The course of instruction given is, at present, optional. Its main feature is a series of fifteen lecture-demonstrations, copiously illustrated by lantern slides. Each lecture lasts for three-quarters of an hour; the remaining fifteen minutes of the period are devoted to an examination of specimens, both microscopical and macroscopical, and to the answering of questions put by the students. Demonstrations of the special methods used in the study of animal parasites are given in the laboratory.

Since the most important and most serious of the diseases caused by animal parasites are due to protozoa, most attention is paid to these organisms and the diseases which are due to more highly organized animal parasites are but briefly mentioned. In the lectures, a broad view is first given of the importance of the protozoa as pathogenic agents and of the methods by which their importance as producers of disease has

been discovered. The protozoa are then considered as a whole and their functions and characters are considered. Malaria is the best known and most completely studied of all the diseases caused by protozoa; analogies to what is known to occur in malaria are frequently discovered during the investigation of minor studies of pathogenic protozoa. For this reason the parasite causing malaria, its life, its transmission, and the means of destroying it, are studied with considerable thoroughness. The diseases caused by amoebae, by piroplasmata, by trypanosomes, by spirochaetes and by protozoa of uncertain position are then considered, but with less detail than in the case of malaria. Only three lectures are spent on the worms and in alluding to those insects and other arthropoda which are immediately harmful through their parasitism upon men and animals.

Some of the diseases of domestic animals and of plants are due to animal parasites. For this reason the Department of Parasitology is partly supported by Macdonald College—the College of McGill University which contains the Faculty of Agriculture. At present all the laboratory work of this department is carried out in the splendidly equipped laboratories of Macdonald College. Eventually it is expected that much of that work will be brought to the laboratories provided for Parasitology in the new medical buildings in Montreal.

PHARMACOLOGY AND THERAPEUTICS.

PROFESSOR:—A. D. BLACKADER, B.A., M.D.
LECTURER:—J. W. SCANE, M.D.
DEMONSTRATOR:—J. L. D. MASON, M.D.

The work has been arranged as follows:—The course in Materia Medica and Pharmacy will be given during the latter part of the Second Year and will consist of lectures, demonstrations, and practical work by the student.

The course in Pharmacology will be given in the Third Year and will consist of a systematic course of lectures on

the physiological action of drugs, with demonstrations, and practical laboratory work, ruring which the student will be able to study by experiment the action of the more important drugs.

In the Fourth Year a systematic course on the therapeutic application of drugs and remedial measures will be given, and in the Fifth Year a course of special demonstrations in Applied Therapeutics in the wards of the General Hospital.

The Eddie Morrice Laboratory, comprising pharmacological and chemical research rooms, has, through the liberality of Mr. Morrice, been fully equipped with all necessary apparatus for carrying on extended research work.

MEDICAL JURISPRUDENCE.

PROFESSOR:—GEO. WILKINS, M.D.

ASSISTANT PROFESSOR:—D. D. MACTAGGART, M.D.

This course is treated of in its medical as well as medico legal aspects. Special attention is devoted to the subject of blood stains, the chemical, microscopical and spectroscopic tests for which are fully described and shown to the class. The various spectra of blood in its different conditions are shown by the micro-spectroscope, so well adapted for showing the reactions with exceedingly minute quantities of suspected material. Recent researches in the diagnosis of human from animal blood are alluded to. In addition to the other subjects usually included in a course of this kind, Toxicology is taken up. The modes of action of poisons, general evidence of poisoning and classification of poisons are first treated of, after which the more common poisons are described, with reference to symptoms, post-mortem appearance and chemical tests. The post-mortem appearances are illustrated by plates, and the tests are shown to the class.

Practical demonstrations will be given once a fortnight by Dr. MacTaggart.

HYGIENE.

STRATHCONA PROFESSOR:—T. A. STARKEY, M.B., D.P.H., M.R.S.I.

DEMONSTRATORS:— { F. B. JONES, M.D., D.P.H.
J. A. LUNDIE, M.D., D.P.H.

Owing to the endowment of the Department of Hygiene by the Right Honorable Lord Strathcona, a teaching Laboratory has been established in connection with the chair of Hygiene. The compulsory course in Hygiene consists of two lectures per week throughout the winter and spring terms of the Third Year, supplemented by demonstrations dealing with the practical application of hygienic principles as well as the elementary chemistry and bacteriology of water, air, soil, foods and beverages. In addition, excursions are made periodically to inspect some point of hygienic interest. The course also includes the hygiene of air, soil, water and climate; health resorts, personal hygiene, bathing, exercise, clothing, hygiene of special life periods; food and diet; food supply; food diseases and adulterations; hygiene of dwellings; heating, lighting and ventilation, sanitary fittings; municipal sanitation; water supply; sewage; drainage; refuse disposal; burial of the dead; hygiene of occupation, offensive trades; hygiene of hospitals, prisons, etc.; preventive medicine; methods of dealing with infectious diseases and epidemics; communicable diseases of animals; organization of health boards; sanitary law and administration in relation to the medical practitioner; vital statistics in relation to the healthfulness of communities.

An optional practical course more advanced than the one above referred to, will be open to students wishing to go into higher detail.

Special courses of instruction are given to graduates wishing to qualify themselves in sanitary work, or to obtain the diploma in Public Health (See "Diploma Course in Public Health," page 308.)

The Laboratory has been equipped with the apparatus needed in giving practical illustrations in Hygiene, either as

demonstrations to large classes of students, or as practical work for smaller groups.

The museum contains working models and apparatus illustrative of the application of hygienic principles.

The arrangement is as follows:—

The Hygiene Department occupies the entire north end of the laboratory wing, having the floor space corresponding with that of the Department of Histology. The main laboratory is 60 x 50 feet, and it is well equipped with apparatus for demonstrations and practical work in Hygiene. Adjoining it is a balance room and private laboratory, 13 x 15 feet. Opening off the main laboratory is the museum, about 45 x 30 feet, which is well stored with full sized specimens and working models illustrative of all branches of Public Health.

MEDICINE.

PROFESSORS:— F. C. FINLEY, M.B., M.D.
H. A. LAFLEUR, B.A., M.D.
C. F. MARTIN, B.A., M.D.
ASSISTANT PROFESSOR:—W. F. HAMILTON, M.D.
LECTURER:—G. G. CAMPBELL, M.D.

While the lectures on this subject are mainly devoted to Special Pathology and Therapeutics, no opportunity is lost of illustrating and explaining the general laws of disease. With the exception of certain affections seldom or never observed in this country all the important internal diseases of the body, except those peculiar to women and children, are discussed and their pathological anatomy illustrated by the large collection of morbid preparations in the University Museum, and by fresh specimens contributed by the Professor of Pathology.

The College possesses an extensive series of plates and models illustrative of the histological and anatomical appearances of disease, and the wards of the General and Royal Victoria Hospitals afford the lecturers ample opportunities to refer to living examples of very many of the maladies described, and to demonstrate the results of treatment. All didactic lectures will be given during the Fourth Year.

CLINICAL MEDICINE.

PROFESSORS:— F. G. FINLEY, M.B., M.D.
H. A. LAFLEUR, B.A., M.D.
C. F. MARTIN, B.A., M.D.

ASSISTANT PROFESSOR:—W. F. HAMILTON, M.D.

LECTURERS:— G. GORDON CAMPBELL, B.Sc., M.D.
S. RIDLEY MACKENZIE, M.D.
A. A. BRUERE, M.D.
A. G. NICHOLLS, M.A., M.D.
JOHN MCCRAE, M.B.

LECTURER IN CLINICAL NEUROLOGY:—D. A. SHIRRES, M.D.

DEMONSTRATORS:— C. A. PETERS, M.D.
F. M. FRY, B.A., M.D.
H. B. CUSHING, B.A., M.D.
A. H. GORDON, M.D.
C. K. RUSSELL, M.D.
A. C. P. HOWARD, B.A., M.D.
C. F. WYLDE, M.D.
H. C. MEAKINS, M.D.

ASSISTANT DEMONSTRATORS:— A. G. MCAULEY, M.D.
J. G. BROWNE, M.D.
W. W. FRANCIS, M.D.
D. W. MCKECHNIE, M.D.

The instruction in Clinical Medicine is conducted in the theatres, wards, out-patient rooms and laboratories of the Royal Victoria and Montreal General Hospitals.

The instruction will extend throughout the Third, Fourth and Fifth Years. In the Third Year, demonstrations will be given to groups of students in the methods of examination, and in normal and abnormal physical signs, in the wards and out-patient departments of the Hospitals. This will be supplemented by courses in Clinical Chemistry and microscopy at the College.

Clinical instruction will also be given in the Hospital theatres to small groups of students and in the wards and out-patient departments.

In the Fourth Year, a systematic course of didactic lectures will be given, and clinical instruction will be given in the theatres and out-door departments of the Hospitals.

The Fifth Year will be devoted exclusively to hospital work. Each student will be required to personally conduct and record the routine examination of patients assigned to him in the wards of the Hospitals. He will also be required to carry out the necessary examination of blood, sputa and urine in the hospital laboratories and to attend and report on autopsies on patients assigned to him. Instruction in the theatres and wards will be given on four days of the week and, as occasion offers, joint sessions will be held with the pathological department in which the clinical and pathological features of certain cases may be compared.

The out-door department of each Hospital has a large neurological clinic, which will be utilized for instruction, and for teaching the uses of electricity in diagnosis and treatment.

Special clinics are also devoted to the diseases of children, and groups of students will attend in rotation.

Infectious diseases will be demonstrated to groups of students in the Fourth and Fifth Years, the large number of cases under treatment at the Alexandra Hospital being available for this purpose.

HISTORY OF MEDICINE.

PROFESSOR:—ANDREW MACPHAIL, B.A., M.D.

A course of twelve lectures will be given upon the History of Medicine to all undergraduates in the Faculty who desire to inform themselves upon the progress of the science. It is the intention to examine the causes which produced the varying conceptions of medicine in times past, rather than burden the student with a narration of facts and a recital of biographies.

SURGERY AND CLINICAL SURGERY.

PROFESSORS:— JAMES BELL, M.D.
GEORGE E. ARMSTRONG, M.D.

ASSISTANT PROFESSORS:— A. E. GARROW, M.D.
J. A. HUTCHISON, M.D.

ASSISTANT PROFESSOR OF SURGERY:—J. M. ELDER, B.A., M.D.

LECTURERS IN CLINICAL SURGERY:— J. M. ELDER, B.A., M.D.
KENNETH CAMERON, B.A., M.D
E. W. ARCHIBALD, B.A., M.D.
W. L. BARLOW, M.D.

DEMONSTRATORS IN CLINICAL SURGERY:— C. B. KEENAN, M.D.
A. T. BAZIN, M.D.
A. R. PENNOYER, M.D.

DEMONSTRATORS IN ORTHOPOEDIC SURGERY:— W. G. TURNER, M.D.
A. McK. FORBES, M.D.

ASSISTANT DEMONSTRATORS IN CLINICAL SURGERY:— E. M. VON EBERTS, M.D.
W. H. P. HILL, M.D.
C. K. P. HENRY, M.D.
R. P. CAMPBELL, B.A., M.D.
J. W. HUTCHINSON, M.D.
F. McKENTY, M.D.

PRINCIPLES AND PRACTICE OF SURGERY.

The course of didactic lectures on the Principles and Practice of Surgery and Surgical Pathology is illustrated by a large collection of preparations from the Museum, as well as by fresh specimens obtained from cases under observation at the hospitals and by lantern slides.

This course will cover the whole field of surgery and will thus include some of the rarer conditions which of necessity do not often come within the sphere of clinical teaching. It is intended to be, as far as possible, complementary to the clinical teaching and to deal mainly with those aspects of surgical diseases which cannot be fully dealt with by the clinical teacher. With this object in view the groups or classes into which surgical conditions naturally arrange themselves will be taken up and dealt with analytically instead of endeavouring to follow the systematic arrangement of the text-books. For a full and systematic description of diseases the student is referred to the text-book.

Clinical Surgery.

The teaching in Clinical Surgery is conducted at the Montreal General and Royal Victoria Hospitals.

(1) In the amphitheatre of each of these hospitals, demonstrations are given and operations are performed before the Senior and Junior Classes on alternate days.

(2) Small ward classes of about ten men in each are taken through the wards daily by the surgeons in attendance, at each hospital, and instruction given at the bedside concerning the nature and management of surgical cases. Similar classes are also taken into the wards daily by the Surgical Assistants for instruction in diagnosis and reporting.

(3) Beds are assigned to students in rotation, and each student is required to carefully study and report cases and to assist in the surgical dressing of the same. Certificates of case reporting are given, and are essential to graduation.

(4) In the out-patient department students have an exceptionally good opportunity to study a great variety of injuries, to witness operations in minor surgery, to come into personal contact with patients and to take part in the application of a variety of surgical dressings and appliances.

OBSTETRICS AND DISEASES OF INFANTS.

Professor:—J. Chalmers Cameron, M.D.

Lecturers:— { D. J. Evans, M.D.
H. M. Little, B.A., M.D.

Demonstrators:— { H. R. D. Gray, B.A., M.D.
J. W. Duncan, M.D.

Assistant Demonstrator:—H. C. Burgess, M.D.

This course will embrace: (1) Lectures on the principles and practice of the obstetric art, illustrated by diagrams, fresh and preserved specimens, the artificial pelvis, complete sets of models illustrating the deformities of the pelvis, wax preparations, bronze mechanical pelvis, etc.; (2) bedside instruction in the Montreal Maternity, including external palpation, pelvimetry, the management and after-treatment of cases;

(3) a complete course on obstetric operations with the Tarnier-Budin phantom; (4) the diseases of infancy; (5) a course of individual clinical instruction at the Montreal Maternity Hospital.

The course is carefully graded and instruction is given separately to students of the Third and Fourth Years.

Particular attention is given to clinical instruction, and a clinical examination similar to that held in Medicine and Surgery, forms an important part of the Final Examination.

A short course of lectures on Diseases of Infancy is given, supplemented by clinical demonstration and ward work. The demonstrators give special demonstrations from time to time and take the students in groups for the purpose of examination and review.

GYNAECOLOGY.

PROFESSOR:—WM. GARDNER, M.D.
LECTURERS:— { F. A. L. LOCKHART, M.B.
W. W. CHIPMAN, B.A., M.D.
DEMONSTRATORS:— { DAVID PATRICK, M.D.
J. R. GOODALL, B.A., M.D.
H. M. LITTLE, B.A., M.D.

The didactic course consists of from forty to forty-five lectures given at intervals, alternating with the lectures on Obstetrics, and extending throughout the session. The anatomy and physiology of the organs and parts concerned are first discussed. Then the various methods of examination are fully described, the necessary instruments exhibited, and their uses explained.

The diseases peculiar to women are considered as fully as time permits, somewhat in the following order:—Disorders of menstruation; leucorrhœa; diseases of the external genital organs; inflammations, lacerations and displacements of the uterus; the infections of the pelvic peritoneum and cellular tissue and the uterine appendages; benign and malignant growths of the uterus; tumours of the ovary; diseases of the bladder and urethra. The lectures are illustrated as fully as possible by drawings, morbid specimens and lantern slides.

Clinical teaching, including out-patient and bed-side instruction is given at both the Royal Victoria and Montreal General Hospitals by Professor Gardner and Doctors Lockhart, Chipman, Patrick and Goodall. A large amount of clinical material is thus available for practical instruction in this department of medicine. Numerous operations are done before the class and made the subject of remarks. In addition to the ward-patients, each Hospital conducts a large out-patient gynæcological clinic, to which advanced students are admitted in rotation, and instructed in digital and bi-manual examination and in the use of instruments for diagnosis.

Particular attention is thus given to clinical instruction, and a clinical examination in Gynæcology similar to that held in Medicine and Surgery, forms part of the final examination.

OPHTHALMOLOGY.

PROFESSOR:—J. W. STIRLING, M.B.

LECTURERS:—W. G. M. BYERS, M.D.; G. H. MATHEWSON, B.A., M.D.

DEMONSTRATORS:—F. T. TOOKE, B.A., M.D.; S. H. McKEE, B.A., M.D.

This course will be made as practical as possible, and with this end in view the following scheme has been prepared:—

In the Fourth Year there will be a didactic course of about fifteen lectures, delivered at the University. The more unusual diseases of the eye will be fully described, while the commoner diseases will merely be touched on, the fuller consideration of the latter being reserved for the clinical lectures to be delivered in the Fifth Year. In addition, in the Fourth Year there will be tutorial classes on the methods of examination of the eye, the use of the ophthalmoscope, and the refraction of the eye.

In the Fifth Year there will be a regular course of clinical lectures at the Royal Victoria and Montreal General Hospitals, as well as a tutorial course in operations on the cadaver, and also one on the bacteriology of the eye.

OTO-LARYNGOLOGY.

PROFESSOR:—H. S. BIRKETT, M.D.
DEMONSTRATOR OF RHINOLOGY & LARYNGOLOGY:—H. D. HAMILTON, B.A., M.D.
DEMONSTRATOR OF OTO-LARYNGOLOGY:—W. H. JAMIESON, M.D.
DEMONSTRATOR OF RHINOLOGY AND LARYNGOLOGY:—R. H. CRAIG, M.D.

ASSISTANT DEMONSTRATORS OF OTO-LARYNGOLOGY:—
H. S. MUCKLESTON, M.D.
HAMILTON WHITE, M.D.

This course consists of clinical instruction, carried on in the out-patient department of both the General and Royal Victoria Hospitals, on the diagnosis and treatment of diseases of the nose, throat and ear, including practical lessons on the use of the laryngoscope, rhinoscope and methods of examining the ear. The instruction is carried out with small classes, so that individual attention may be insured. A few didactic lectures are delivered on the more important diseases of the ear.

MENTAL DISEASES.

PROFESSOR:—T. J. W. BURGESS, M.D.

This course will comprise a series of lectures at the University on Insanity in its various forms, from a medical as well as from a medico-legal standpoint. The various types of mental diseases will be illustrated by cases in the Verdun Hospital, where clinical instruction will be given to visiting groups of senior students at intervals throughout the Session.

DISEASES OF INFANTS AND CHILDREN.

PROFESSORS:— J. C. CAMERON, M.D.; A. D. BLACKADER, B.A., M.D.
LECTURERS:— D. J. EVANS, M.D.; G. G. CAMPBELL, M.D.
DEMONSTRATORS:— W. M. FISK, M.D.; A. C. P. HOWARD, M.D.

Although this subject does not constitute a special chair in the University, systematic instruction is given (*a*) in connection with the chair of Obstetrics and Diseases of Infants by

Prof. Cameron; (*b*) by a course of lectures, clinical and didactic, by Prof. Blackader; and (*c*) through the Children's Clinic at the Montreal General and Royal Victoria Hospitals, at the Infants' Home, and at the Montreal Foundling and Sick Baby Hospital.

CLINICAL MICROSCOPY.

This course, which is given during the winter term of the Third Year, is essentially a practical one and is in charge of Dr. G. G. Campbell, assisted by Drs. Ridley Mackenzie, A. A. Bruère, C. F. Wylde, and other teachers connected with the department of Clinical Medicine.

It is a laboratory course, forming part of the Third Year instruction in Medicine, and is held in the pathological laboratory of the Medical Building. The classes are held twice weekly, each demonstration lasting two hours.

Students are given instruction in the microscopic appearances of the normal and abnormal sediments in the urine, in the preparation and staining of films from pus and sputum for pathogenic bacteria, in the methods of examination of the blood, including the use of the hæmoglobinometer, hæmocytometer, microspectroscope, the determination of the specific gravity, the examination of fresh films, the preparation of stained blood films and the method of making differential leucocyte counts. The instruction also comprises the microscopic examination of stomach contents and fæces, for the recognition of abnormal cellular elements, fat, blood, bacteria and animal parasites; the examination of exudates and other pathological fluids obtained by puncture, and also the examination of hairs for the parasites of ringworm and favus.

In addition to this the student is given an opportunity of examining the various bacteria of importance in Clinical Medicine and Surgery.

Various specimens of special interest, which are found in the hospitals from time to time, are examined as occasion arises at the demonstrations.

DERMATOLOGY.

PROFESSOR:—F. J. SHEPHERD, M.D., LL.D., (Edin.)
LECTURER:—G. G. CAMPBELL, M.D.
DEMONSTRATOR:—W. P. BURNETT, M.D.

The course is entirely clinical, consisting of a weekly theatre clinic at the Montreal General Hospital, by Prof. Shepherd, on specially selected cases, and an outdoor clinic, by Drs. G. G. Campbell, at the Montreal General Hospital, and W. P. Burnett at the Royal Victoria Hospital, throughout the Session. Lantern slides are made use of to illustrate the course; also a large series of colored plates and photographs.

Text Books.

ANATOMY.—Cunningham, Gray, Morris, Quain (Eng. Ed.) Gerrish, Piersol.
PRACTICAL ANATOMY.—Cunningham's Practical Anatomy, Ellis's Demonstrations, Holden's Dissector and Landmarks.
DERMATOLOGY.—Stellwagon, Malcolm Morris, Walker's Introduction to Dermatology, Hyde and Montgomery, Crocker, Pusey.
PHYSICS.—Carhart and Chute, Elementary Physics.
INORGANIC CHEMISTRY.—Newth's Text-Book.
ORGANIC CHEMISTRY.—Remsen.
BIOLOGICAL AND CLINICAL CHEMISTRY.—Outlines of Physiological Chemistry, Beebe and Buxton; Clinical Chemistry, A. E. Austin. (*For Reference.*— General Chemistry for Colleges, A. Smith; Holleman's Organic.
PHYSIOLOGY.—Halliburton, Foster, Stewart, Mills's Text-Book of Animal Physiology, Howell's American Text-Book, Brubaker, Hall, Ott, Mills's Class Laboratory Exercises.
GENERAL PATHOLOGY.—Delafield and Prudden, Sidney Martin, Green, Ziegler, Well's Chemical Pathology, Adami's Inflammation, Coplin, Adami's General Pathology.
SPECIAL PATHOLOGY.—Stengel's American Text-Book, Zeigler, Coplin, Catalogue of McGill Pathological Museum.
PRACTICAL PATHOLOGY.—Mallory and Wright, Cattell's Post Mortem Technique.
BACTERIOLOGY.—Muir and Ritchie, McFarland, Park.
PRACTICAL BACTERIOLOGY.—Eyre, Connell.
PRACTICE OF MEDICINE.—Osler, Tyson, Wood and Fitz, J. M. Anders, Hare.
CLINICAL MEDICINE.—Rainey and Hutchison, Musser's Medical Diagnosis, Simon, Klemperer, Vierodt's Medical Diagnosis, Sahli's Diagnostic Methods.
HYGIENE.—Davies, Harrington, Abbott's Transmissible Diseases, Notter and Firth, Parks and Kenwood, Stevenson and Murphy.
HISTOLOGY.—Schafer's Essentials of Histology, Stohr, Szymonowicz, Bailey, Ferguson, Bohn and Davidoff.

OPERATIVE SURGERY.—Binnie, Treves, Kocher.
SURGERY.—Walsham, American Text-Book of Surgery, Da Costa, Rose & Carliss, Warren & Gould, Park.
MEDICAL JURISPRUDENCE.—Mann, Draper's Legal Medicine.
PRACTICAL THERAPEUTICS.—Ortner, Hare, Forscheimer, Shoemaker.
PHARMACOLOGY.—Dixon, Butler, Cushny, Sollman, Wood, Tyrode. (*For Reference,* United States Dispensatory, Remington Pharmacy.)
DISEASES OF CHILDREN.—Holt, Rotch, Ruhra, Forcheimer, Williams, Graetzer, Hecker and Trumpp. (Abt.), McCaw.
NERVOUS DISEASES.—Church and Peterson, 5th ed., Atlas of the Nervous System and its Diseases, Jacob, Starr.
MENTAL DISEASES.—Insanity and its Treatment, Blandford, 4th Ed. (*For Reference,* A Practical Manual of Insanity, Brown & Bannister, Kraft Ebing.)
OBSTETRICS.—Jewett, Hirst, American Text-Book, Jellet, Wright, and Evan's Pocket Text-Book, McGill Obstetric Note Book, Renouf's Obstetric Phantom.
DISEASES OF INFANCY.—Fischer.
GYNAECOLOGY.—Hart and Barbour, Dudley on Diseases of Women, Montgomery, Webster, Tod, Gillian.
BIOLOGY.—*Botany.*—Gray's Text-Book of Histology and Physiology; *Zoology,* Shipley and MacBride's Introduction to Zoology.*
EMBRYOLOGY.—Heesler, Text-Book of Embryology.
OPHTHALMOLOGY.—Swantzy; The Commoner Diseases of the Eye, Wood & Woodruff; De Schweinitz; Fuchs.
OTO-LARYNGOLOGY.—Politzer (Ear), Watson Williams; Posey and Wright (Diseases of Nose and Throat and Ear, Vol. II.); Diseases of Nose, Throat and Ear, by Charles H. Knight, M.D.
MEDICAL DICTIONARY.—Gould, Dorland, Dunglison, Hoblyn.
PARASITOLOGY AND TROPICAL MEDICINE.—Manson, Tropical Diseases, 4th Ed., 1907. (Cassell & Co., London.). *Laboratory Hand-Book*:—Stephens & Christophers, The practical study of Malaria and Blood Parasites, 3rd Ed., 1908. (Williams & Norgate, London.), *For Reference*:—Dantec, A. Le, Pathologie exotique, 2nd Ed., 1905 (Octave Doin, Paris.); Neveu Lemaire, Précis de Pathologie humaine, 4th Ed., 1908 (Rudeval, Paris.); Mense, Handbuch der Tropenkrankheiten, 1905 (Barth, Leipzig.).

DOUBLE COURSES.

By special arrangement with the Faculty of Arts, it is now possible for students to obtain the two Degrees, B.A. and M.D. or B.Sc. and M.D., after only seven years of study. (For particulars see page 107.)

*Each student will be required to pay $2.50 in order to cover the cost of a class book, dissecting instruments and other necessaries, which are supplied to him and become his property.

Double course students who intend to practise in the Province of Quebec, are required to matriculate and register with the Quebec Licensing Board not later than the end of their Third Year in Arts.

POST-GRADUATE AND ADVANCED COURSES.

The Faculty of Medicine in 1896 established post-graduate and special courses in connection with the Montreal General and Royal Victoria Hospitals and the various laboratories in the University buildings.

Commodious laboratories for advanced work have been equipped in connection with the Pathological and Clinical departments of both the Royal Victoria and Montreal General Hospitals, and in connection with the general laboratories for Pathology, Pharmacology, Physiology and Chemistry, recently altered and extended, in the new buildings of the Faculty.

Recent graduates of recognized universities desiring to qualify for examinations by advanced laboratory courses, or who wish to engage in special research, may enter at any time by giving notice, stating the courses desired and the time at their disposal.

All the regular clinics and demonstrations of both hospitals will be open to such students on the same conditions as to undergraduates in Medicine of this University.

The Post-Graduate Course of 1909.

The regular course of instruction for post-graduate students in the Faculty of Medicine will be given during the months of June, July and August.

A circular containing full information regarding courses, fees, etc., has been prepared and can be obtained on application to Dr. J. W. Scane, Registrar of the Faculty of Medicine.

SPECIAL COURSES IN HYGIENE.

In the session 1899-1900 the Faculty instituted a post-graduate course in Public Health and Sanitary Service, and

since that time other courses, as prescribed below, have been instituted.

Special instruction is given in this department, leading to the Diploma of Public Health; also for engineers, architects, and those wishing to include this subject in their final examination for the degree of Doctor of Philosophy (Ph.D.).

A small fee will be charged for each of the three last named courses.

(1) Diploma Course in Public Health.

Candidates undertaking this course must have possessed a Degree in Medicine, or other qualification for practice, for at least twelve months before he is competent to receive the diploma. The courses prescribed are as follows:—

1. A course of lectures in Public Health (to be omitted in the case of candidates who have attended such a course before graduation).

2. A three months' course in Bacteriology, special attention being directed to the pathogenic organisms and parasites—such course to be omitted on presentation of proof that it has previously been taken.

3. A six months' course of practical study of out-door sanitary work under a medical officer of health (to be omitted in the case of medical health officers holding appointments prior to the establishment of this diploma course).

4. Three months' attendance and clinical instruction at a hospital for infectious diseases (unless such course has already been taken prior to graduation).

5. Three months' instruction in sanitary chemistry and physics, with practical work in a chemical laboratory.

The examination for the Diploma shall cover the following subjects:—examination of clinical cases at an infectious hospital; the drawing up of outlines for annual and other reports of officers of health; a report upon the sanitary condition of some actual locality; the chemical analysis of liquids and gases and of specimens of food; demonstration of the consideration and use of meteorological, hygienic and sanitary apparatus;

microscopical examination of specimens submitted; description of specimens of human and other diseased tissues; practical examination in the employment of the usual bacteriological methods; the inspection of carcasses of animals to be used for food.

The above examination shall be written, oral and practical, and shall extend over a period of four days.

The following is a list of subjects included in the curriculum of study:—

(*a*) *Sanitary Chemistry*:—Examination of air, gases, water, the action of water on metals; milk, food and beverages; detection of poisons in articles of dress and of decoration; the chemistry of sewage.

(*b*) *Sanitary Physics*:—Principles of statics, pneumatics, hydraulics, light, light and photometry, heat and thermometry, the principles of hygrometry, (only in their application to hygiene).

(*c*) *Sanitary Legislation*:—Statutes and by-laws relating to public health; the powers of public sanitary authorities.

(*d*) *Bacteriology and Parasitology*:—Modes of propagation of disease and transmission of disease between man and man, and man and animals; bacteriological analysis in relation to public health matters; natural history of microbes and animal parasites.

(*e*) *Vital Statistics*:—Calculation and tabulation of returns of births, marriages, deaths, and diseases.

(*f*) *Meteorology and Climatology,* including the geographical and topographical distribution of disease.

(*g*) *Preventive Medicine and Practical Sanitation.*

The fee for the Diploma, including laboratory fee, shall be $50.00.

(2) Course for Civil Engineers.

This course is given to meet the requirements of engineers, particularly those making a specialty of sanitary engineering.

The object of the instruction is to elucidate the public health

principles involved in engineering problems, *e.g.*, ventilation, water supplies, sewage disposal, and drainage systems.

(3) Course for Architects.

Special instruction is given in those branches of public health relating to architectural work, *e.g.*, lighting and heating, ventilation, sanitary fixtures, draining and plumbing.

(4) Course for the Degree of Doctor of Philosophy, (Ph.D.).

Hygiene, or some particular branch of it, may be taken out as a minor subject in the final examination for the Ph.D. degree. Special arrangements are made to suit the student in order that the work done in this department shall be a supplement to his major subject taken out in Applied Science.

(5) Course for Promotion in the Army Medical Corps.

As hygiene forms one of the compulsory subjects in the examination for promotion in the Permanent Army Medical Corps, special classes are held for the purpose of giving instruction in this subject—particular attention being paid to Military Hygiene.

The attendance in this class counts towards the requirements for the Diploma of Public Health.

Courses (2) and (3) can be commenced at any time during the session, and usually are of about three months duration.

A small fee will be charged for each of the Courses (2), (3), (4) and (5).

CLINICAL INSTRUCTION.

Few Medical Schools are able to offer such excellent facilities for clinical instruction as the Medical Faculty of McGill University. This is so, because of the extensive field afforded for such instruction in the Montreal General and the Royal Victoria Hospitals, both of which have at least a continental reputation.

Clinics are held regularly in all subjects in both hospitals, and tutorial instruction is given in the wards, out-patient rooms and laboratories. Besides this, every facility is afforded in the Montreal Maternity Hospital for acquiring a practical knowledge of the various obstetric manipulations and the management and after treatment of cases. Full particulars regarding the character of this part of the work, with detailed descriptions of the Hospitals, are given in the Medical Calendar, which will be sent on application.

MUSEUMS.

The Faculty has during recent years devoted special attention to the development of its museums in the several departments in which objective teaching is of especial value in the education of the student.

The Anatomical Museum was completely destroyed, and the Museum of Pathology seriously damaged, by the fire of two years ago in the Medical buildings. Both these departments are, however, rapidly collecting new specimens. Many have already been received from the Army and Navy Museum of Washington, D.C., from the University of Edinburgh, and from other institutions. The Museum of Public Health and Preventive Medicine and the Museum of Pharmacy were not damaged. and are still available for teaching purposes.

Each collection is arranged and selected with the primary object of making it a teaching museum. The several collections are open to students and the public between 9 a.m. and 6 p.m.

LIBRARY.

LIBRARIAN:—PROF. F. G. FINLEY.
ASSISTANT LIBRARIAN:—MISS M. R. CHARLTON.

The Library of the Medical Faculty now comprises upwards of thirty thousand volumes, the largest special library connected with a medical school on this continent.

The valuable libraries of the late Professors Robert Palmer Howard, George Ross, Richard L. MacDonnell, T. Johnston

Alloway and of Dr. Allen Ruttan have been donated to the Medical Faculty; and also those of the Montreal Veterinary Medical Association and of the Society of Comparative Physiology.

The Faculty is also indebted to Dr. D. McEachran for the fine library of the late Dr. Gadsden, and for a large number of rare and valuable works bearing on comparative medicine.

The standard text-books and works of reference, together with complete files of the leading periodicals, are on the shelves. Students may consult any work of reference in the library between 9 a.m. and 6 p.m., and from 7.30 to 10.30 p.m.

After the fire of April 16th, 1907, the Library was removed to the University Library where it will remain until the new Medical Building is ready. A large reading room has also been provided in the University Library for the teachers and students of this Faculty.

McGILL MEDICAL SOCIETY.

This Society, composed of registered students of the Faculty, meets every alternate Friday during the autumn and winter terms, for the reading of papers, case reports and discussions on medical subjects. A prize competition has been established in Senior and Junior subjects, the Senior being open to all to write upon, while only the First, Second and Third Year students are allowed to compete in the Junior subjects. The papers are examined by a board elected from the Professoriate, and a first and second prize in each division of subjects is awarded to the successful candidates.

Names of competitors and titles of papers must be sent to the Chairman of the Programme Committee before September 1st, and all papers are subject to the call of the Committee on October 1st. All papers must be handed in for examination on or before January 10th.

The students' reading room, in which the leading English and American Medical Journals are on file, as well as the leading daily and weekly newspapers of the Dominion, has been placed under the control of this Society.

SPECIAL INFORMATION REGARDING THE COURSE IN DENTISTRY.

THE SESSION 1909-1910 WILL OPEN ON WEDNESDAY, SEPTEMBER 29TH, 1909. STUDENTS MAY REGISTER AT ANY TIME DURING THE PRECEDING WEEK.

The course in Dentistry extends over four sessions of eight months each and leads to the Degree of D.D.S. The lectures of the first two years will be given, and the laboratory and other practical work done, at the Medical College. The work during the last two years and part of the second year has special reference to Dentistry proper, and will be carried on chiefly at the Dental College.

MATRICULATION.

Students in Dentistry must pass the matriculation examination required of students in Medicine, for particulars of which see page 26. Those who intend to practise in the Province of Quebec must pass the matriculation examination of the Dental Association, if they do not hold a Degree in Arts or Medicine from a recognized British or Canadian University. A certificate of having passed this examination will be accepted as a full equivalent for the matriculation examination of this University.

The fee for the Dental Association examination is $20.00, and is payable to the Secretary, Dr. Eudore Dubeau, 396 St. Denis Street, Montreal, from whom all further information can be obtained.

FEES.

See page 70.

ADMISSION TO PRACTICE.

In accordance with the provisions of the Dental Act, candidates intending to practise in the Province of Quebec must

sign indentures, before a Notary Public, with a licentiate of Dental Surgery in active practice in the Province, four years before being admitted to the profession. He should, therefore, register with the Dental Board at the beginning of his College course.

The requirements for admission to study and practice in the other provinces of the Dominion (British Columbia excepted) will be learned by corresponding with the secretary of the Dominion Dental Association.

REQUIREMENTS FOR THE DEGREE.

The Degree of Doctor in Dental Science (D.D.S.) will be conferred only on candidates who (1) have attained the full age of twenty-one years, (2) are of good moral character, (3) have attended for four regular sessions, (4) have paid all the required fees, and (5) have passed the prescribed examinations.

COURSE OF STUDY

First Year:—Anatomy, Practical Anatomy, Physics, Inorganic Chemistry, Practical Chemistry, Histology, Biology and Embryology, Bacteriology.

Second Year:—Anatomy and Practical Anatomy (course completed at Christmas), Physiology, Practical Physiology, Organic Chemistry, Bio-Chemistry, Histology, Pharmacy, Pharmacology, Operative Dental Technique, Prosthetic Technique and Dental Anatomy.

Third and Fourth Years:—General Pathology, Bacteriology, Operative and Mechanical Dentistry, Crown and Bridge-Work, Practical work in Infirmary, Dental Pathology, Materia Medica, Orthodontia, and Dental Surgery.

UNIVERSITY BUILDINGS.

THE CENTRE BUILDING.

This building, the first and oldest building of McGill College, contains the lecture-rooms of the Faculty of Arts and the botanical laboratories in the centre. The East Wing contains the newly equipped zoological laboratories, the offices of the Administration, and the lecture rooms of the Faculty of Law. The West Wing (the old Molson Convocation and Examination Hall) is now used for examination purposes only.

The botanical laboratories are described in detail on page 320, the zoological laboratories on page 333.

THE MEDICAL BUILDING.

Before the fire in April, 1907, this building was the largest on the University campus, the total length being 280 feet and the maximum width 145 feet, with a capacity of about 1,750,000 cubic feet. A large part of the building was saved from the fire and has been rearranged to provide the necessary teaching facilities for students of the first two years especially. Senior students find ample lecture room accommodation in the theatres of the Royal Victoria and Montreal General Hospitals, in connection with which a large part of their work is carried on. Fortunately all the laboratories were situated in the part of the building which still stands, so that no student (senior or junior) suffers at all in so far as laboratory instruction is concerned. In 1908, the erection of a modern and magnificent Medical Building (to cost at least half a million dollars) was begun on a new site, and by the opening of the Session 1909-1910 a large part of it will be available for teaching purposes. In the meantime, the work of instruction is being conducted on the usual thorough and efficient lines.

THE MACDONALD ENGINEERING BUILDING.

The new building, which has been erected on the site of the old one destroyed by fire on the 5th of April, 1907, was ready for the reception of students at the opening of the session 1908-1909. It is designed to provide accommodation for six hundred students. The Departments of Civil Engineering, Architecture and Transportation are permanently provided for in this building, while the Departments of Electrical and Mechanical Engineering are given temporary accommodation until such time as independent buildings can be provided for their growing numbers, but this temporary accommodation is for the present quite ample. The ground floor is given up to the Civil Engineering, Geodetic, Electrical and Mechanical Engineering laboratories and is for the most part 23 feet in height. Mechanical

and Electrical Engineering Laboratories and the Workshops also occupy the three lower floors of the Workman Building. The centre portion of the first and second floors will be used for purposes of administration (Faculty Room, offices, library, etc.). The front parts of the second and third floors are occupied by eight classrooms, which contain 470 sittings, while the upper floors both of the Engineering Building and the Workman Building are devoted to drafting rooms containing over 500 tables.

The building throughout is of the most approved fire-proof construction, not only in the matter of materials, but in arrangement as well, the several floors being divided by fire walls and fire doors into separate sections. A repetition of the disaster of 1907 will be impossible, as the areas which could be attacked by fire are very limited and all the floors and partitions are incombustible. Particular attention has been given to the heating and ventilating system. with eminently gratifying results.

The building has been erected at a cost of about half a million dollars and is considerably larger than the old one. Very little of the splendid laboratory equipment in the old building was destroyed. and as a great deal has been received in the shape of donations and acquired by purchase in the meantime, the laboratories will, generally speaking, be much better adapted for teaching purposes than they were before.

A detailed description of the laboratories and workshops and their equipment will be found on pages 320 et seqq.

MACDONALD CHEMISTRY AND MINING BUILDING.

Admirable facilities are afforded in the Macdonald Chemistry and Mining Building for study and research in the departments of Chemistry, Metallurgy, Mining, Mineralogy and Geology. The building was erected, equipped and endowed by Sir William C. Macdonald It is spacious, admirably lighted, heated by hot water and ventilated by electric fans. In addition to the large Lecture Theatre, which seats about 250 students, there are four lecture rooms for smaller classes, and a number of offices.

There are three large general Chemical laboratories, large laboratories for Ore-dressing and Metallurgy and a number of smaller rooms for special purposes, including research work. Among the special laboratories may be mentioned those for Organic Chemistry, Physical Chemistry, Electrolytic Analysis, Gas Analysis, Iron and Steel Analysis, Fire Assaying, Water Analysis, Determinative Mineralogy, Petrography, Photography, etc.

The Library contains a valuable collection of the most recent English, French, and German books, and sets of various journals and transactions, including the Berichte der Deutschen Chemischen Gesellschaft, Journal für Praktische Chemie, Chemisches Centralblatt, Fresenius' Zeitschrift für Aanalytische Chemie, Annales de Chemie et de Physique, Journal of the Chemical Society, Journal of the Society of Chemical Industry, Chemical News, Mineralogical Magazine, Mineralogische und Petrographische Mittheilungen, etc. The library is open to students under such restrictions as are necessary to prevent damage or loss of books.

The rooms for allied purposes have, as far as possible, been grouped together on the same floor, and there is a hydraulic lift running from the basement to the attic. The offices and principal laboratories and supply rooms are also connected by a system of telephones. The building is practically fire-proof.

A detailed description of the laboratories and their equipment is given on page 321.

THE MACDONALD PHYSICS BUILDING.

The Macdonald Physics Building, another of Sir William C. Macdonald's gifts to the University, contains five storeys, each of 8,000 square feet area. Besides a lecture theatre and its apparatus rooms, the building includes a large elementary laboratory nearly 60 feet square and a smaller one for a more elementary course; large special laboratories arranged for higher work by advanced students in heat and electricity; a range of rooms for optical work and photography; separate rooms for private thesis work by students; and two large laboratories arranged for research, provided with solid piers and the usual standard instruments. There are also a lecture room, with apparatus room attached, for Mathematical Physics, a special physical library, and convenient workshops. The equipment is on a corresponding scale, and comprises. (1) apparatus for illustrating lectures; (2) simple forms of the principal instruments for use by the students in practical work; (3) the various types of all important instruments for exact measurement, to be used in connection with special work and research.

A detailed description of the laboratories and their equipment is given on page 328.

THE ROYAL VICTORIA COLLEGE FOR WOMEN.

This residential college for the women students of McGill University, erected and endowed by Lord Strathcona and Mount Royal, is situated on Sherbrooke Street in close proximity to the University buildings and laboratories. The professors and lecturers of the University are thereby enabled to give their services in the conduct of the College classes.

Full particulars regarding the College, terms of residence, etc., are given under "Royal Victoria College."

THE UNIVERSITY LIBRARY.

The general library is housed in the fine Romanesque building erected in 1893 by the late Mr. Peter Redpath.

Dignified and convenient as orginally designed, it was improved and greatly enlarged in 1900, by the late Mrs. Peter Redpath. It now possesses ample accommodation for three hundred and fifty readers, of whom fully one hundred can be provided for in the seminary rooms and special studies.

The main architectural feature of the interior is the general reading room, 110 feet long, 44 feet wide, 34 feet high. It will seat one hundred and fifty readers and has open shelves for about 4,000 volumes.

The book stack, four and five storeys high, of approved type, excellently lighted and ventilated, with four reading bays on each storey, has a working capacity of 250,000 volumes, besides special provision for the storage of maps and of newspapers.

A description of the collections and other particulars are given on page 87.

THE PETER REDPATH MUSEUM.

This building was erected in 1882 by the liberal benefactor whose name it bears. It occupies a commanding position at the upper end of the campus, and besides its central hall and other rooms devoted to the collections, contains a large lecture-theatre, class-rooms, and work-rooms.

THE OBSERVATORY.

Latitude, N. 45° 30′ 17″. Longitude, 4h. 54m. 18s. 67.

Height above sea level, 187 feet.

The Observatory, in which courses of instruction are given in the use of meteorological instruments and in astronomical work, is situated at the head of the University campus.

Meteorological observations.—Records of temperature, atmospheric pressure, wind velocity and direction, and sunshine are obtained by self-recording instruments. Check observations are made at 7.40 a.m., 3 p.m., and 7.40 p.m. on standard instruments.

Soil temperatures are observed, in co-operation with the Physical Laboratory, by means of platinum thermometers at depths ranging from one inch to nine feet.

The astronomical equipment consists of: The Blackman Telescope (6¼ in.); a photoheliograph (4½ in.); a 3¼ in. transit with Repsold micrometer recorder, a prismatic (8 cm.) transit instrument, also arranged as a zenith telescope; two sidereal clocks, one being a Riefler movement in an air tight case; one mean time clock; several sidereal and mean time chronometers; one chronograph; batteries, telegraph lines, and minor instruments.

Observations for clock errors are made on nearly every clear night. Time exchanges are regularly made with the Toronto observatory. Time signals are distributed throughout the city by means of the noon time-ball, continuous clock signals, and the fire-alarm bells; and to the country through the telegraph lines.

The longitude of the Observatory was determined in 1892 by direct telegraph connection with Greenwich, with exchange of observers and instruments.

In addition to the usual standard meteorological instruments the Observatory is equipped with a Richard barograph, a Richard thermograph and a Calendar thermograph, the latter being employed for differential temperatures between the summit of Mount Royal and the Observatory. The anemometer and vane giving records by electrical connection with the Observatory are situated on the summit of Mount Royal at a point about ¾ of a mile northwest of the Observatory. They are 57 feet above the surface of the ground and 810 feet above sea-level. The rainfall of the station is also measured by a self-recording electrical instrument.

THE McGILL UNION.

The McGill Union stands on a convenient site at the corner of Sherbrooke and Victoria Streets, within two minutes' walk of the College gates. The building measures 93 feet by 71 feet, and consists of three storeys and a basement. It has been erected and furnished by Sir William Macdonald at a cost of over $135,000. The building externally is an example of a severe type of English classic, executed in the local grey stone.

The main floor, entered from Sherbrooke Street, is devoted to dining and luncheon rooms. The dining table (table d'hôte and á la carte) will accommodate 120 at a time, and the luncheon room 80. It is, therefore, possible to lunch at least 500 students between the hours of 12 noon and 2 p.m.

On the second floor, billiard rooms, a news hall, a reading-room and library, a study and a lounging gallery ((88 feet by 21 feet) are provided.

The Great Hall, suitable for debates, public meetings, &c., is situated in the top storey. The hall measures 88 feet by 45 feet, and has a total seating capacity of 400. Adjoining the Hall is the Music Room, and at the top of the building four bed-rooms will be found set aside for graduate members re-visiting the City.

The basement is divided between the kitchen and offices, the caretaker's quarters, baths, locker rooms, laboratories and an exercise room 24 feet by 38 feet for boxing and fencing.

The Union has now been in existence for two years and is rapidly becoming the centre of all student activities. Membership is open to all students of the University, without restriction, on payment of the annual fee of $5.00. This fee may be paid to the Bursar of the University or to the Secretary of the Union.

STRATHCONA HALL.

This building—the home of the Young Men's Christian Association of McGill University—is the property of the Association, and is not, therefore, strictly speaking, a University building.

Strathcona Hall is 55 feet wide by 110 feet deep, and is five storeys in height. The three upper storeys are arranged to afford residential accommodation for about 60 men. The rooms on these floors are of various sizes. They are, for the most part, single, but some of them are arranged en suite. Each floor is amply provided with baths, etc., of the most modern type.

The second floor contains a large reading-room, a large game room, and five small rooms to be arranged as studies or for the use of various clubs and societies. The apartments of the General Secretary of the Association are also on this floor.

The Secretary's Office is on the ground floor, which also contains sitting rooms, cloak rooms and a hall, capable of seating 350 persons.

The basement, which is high and well lighted, has a bowling alley, as well as a large room in which a second-hand Book Exchange is conducted during the opening weeks of the college session, and which throughout the session, is used in connection with the social work of the Association.

The building is throughout of the most modern type of construction, and is absolutely fire-proof.

LABORATORIES, MUSEUMS, AND WORKSHOPS.

1. LABORATORIES.

ASSAYING LABORATORY.

See Mining and Metallurgical Laboratories.

ASTRONOMICAL OBSERVATORY.

See Geodetic Laboratory.

BOTANICAL LABORATORIES.

The Botanical Laboratories occupy the upper floor of the central Arts building.

The laboratory for general Morphology provides table accommodation for twenty students, and is equipped with all the necessary appliances for the practical study of plants, either fresh or dry.

In connection with this laboratory, a large collection of dried plants is maintained, from which material is drawn for practical work.

The laboratories for special Morphology at present afford accommodation for twelve students. Each table is provided with a complete outfit of instruments and reagents. Provision is also made for accurate micrometic work and for the production of accurate drawings by means of the camera lucida and Leitz's drawing instrument. More special instruments, including polariscope, spectroscope and photographic apparatus, afford opportunity for detailed studies in these several directions. A supply of physiological apparatus permits the demonstration through actual experimentation, of some of the more prominent plant activities as expressed in movement, transpiration, respiration, geotropism, movement of the nutrient fluids, rate of growth etc.

An investigator's table held by the University at the Biological Laboratory, Wood's Hall, Massachusetts, is available for such students as may successfully complete the advanced course of the Third and Fourth Years.

Properly qualified graduate students are eligible to the occupation of tables for the investigation of problems in marine biology, at any one of the stations administered by the Board of Directors of the Biological Stations of Canada.

CEMENT LABORATORY.

The equipment of the laboratory renders it possible to carry out complete tests of the strength and properties of cements, mortars, concretes, concrete beams, etc., and includes:—

(*a*) Three one-ton tensile testing machines, representing the best English and American practice.

(*b*) One 50-ton hydraulic compressive testing machine.
(*c*) Volumenometers for determining specific gravity and for determining the carbonic acid in the raw material.
(*d*) Faija steaming apparatus for blowing tests.
(*e*) Mechanical hand and power mixers.
(*f*) Apparatus for determining standard consistency.
(*g*) Vicat's and Gilmore's needles for determining set.
(*h*) Weighing hopper, spring and other balances.
(*i*) Gun metal moulds for tension, compression and transverse test pieces, and special apparatus for placing mortar into the moulds under a uniform pressure, which, together with the mechanical mixers, enable the personal errors to be eliminated.
(*j*) Sieves of 20, 30, 40, 50, 60, 70, 80, 100, 120, and 180 meshes per lineal inch for determining the fineness.
(*k*) A Boehme hammer, with all accessories.

The laboratory is also fitted with copper-lined cisterns, in which the briquettes may be submerged for any required time, and with capacious slated operating tables, bins and tin boxes for keeping the cement dry for any period.

A large amount of work is done each year by the third year students, in investigating the specific gravity, fineness, setting properties, constancy of volume, and the tensile, compressive and transverse strengths of cement, both neat and with sand..

CHEMICAL LABORATORIES.

(In the Chemistry and Mining Building.)

The three principal laboratories have each a floor-space of about 2,400 square feet, and together have accommodation for nearly two hundred students working at a time. They are lighted on three sides, and have ample hood space. One is intended for beginners, and the other for more advanced work, more particularly in qualitative and quantitative analysis. In connection with each of the main laboratories is a balance-room, equipped with balances by several of the best makers.

Physical Chemistry is provided for in a special laboratory, nearly 30 by 40 feet, lighted from the north, and supplied with electricity, steam, vacuum pumps, etc. The equipment of this department consists of the apparatus necessary for the determination of the specific gravities of solutions, of the depression of freezing point, of the rise of boiling point, and of densities of gases and vapours. There are constant-temperature baths for accurate measurement of solubilities, Kohlrausch's apparatus for determining the electrical conductivity of solutions, and the apparatus necessary for measuring the electromotive forces generated between metals and their solutions, and in voltaic cells generally. There are also calorimeters for measuring the heat effects produced in chemical reactions. On the same floor there is an optical room, devoted more particularly to crystallographic work and furnished with goniometers, polarising microscopes, axial-angle apparatus, refractometers, etc. Other forms of apparatus will be added as required for research work.

Immediately adjoining the laboratory of physical chemistry is the photographic department, supplied with two dark rooms, arranged on

the maze system, and provided with the necessary appliances for all ordinary photographic work, including an enlarging camera and apparatus for micro-photography.

The laboratory for gas analysis has a northern exposure, and is fitted with a large tank to contain water at the temperature of the room, for use in obtaining a constant temperature in the measurement of gases. The tables are arranged for work with mercury, and the laboratory is supplied with the apparatus of Hempel, Dittmar, Orsat, Elliot and others. It contains also Fleuss, Boltwood, and Töpler pumps for producing high vacua.

The laboratory for electrolytic analysis is supplied with accumulators, thermopile, platinum electrodes, rheostats, ammeters, voltmeters, etc.

Another room has lately been equipped with electric furnaces and other appliances for electro-chemical work.

The organic department comprises a laboratory for preparations and research, a combustion room for analysis, a dark room for polariscope and saccharimeter work, and a lecture room. The laboratory is fitted with all the necessary apparatus for organic research—special hoods for work with poisionous gases, regulating ovens for digesting and drying at various temperatures, filter presses for the extraction of raw materials, and various forms of apparatus for distillation in vacuo. The dark room is equipped with polariscopes and saccharimeters for sugar work. There is a large supply of the necessary organic chemicals, which are supplied free of charge to students engaged in routine or research work in this department.

The laboratory for determinative mineralogy has places for 28 students, and is supplied with abundant materials for practical work. It adjoins the lecture-room in which the lectures in advanced mineralogy are delivered. The mineralogical department is also provided with suitable machinery, run by electricity, for the cutting and polishing of minerals and rocks.

ELECTRICAL LABORATORIES.

The several electrical laboratories are the Standardizing Laboratory, the Fourth Year Dynamo Laboratory, the Third Year Dynamo Laboratory, the High Tension Laboratory, the Photometer Room and a Laboratory for special investigation. Power is supplied in the form of direct current from a number of independent sources and converted when alternating current is required by motor generator sets or by inverted rotaries. The equipment of the laboratories includes, besides the usual current-limiting and controlling devices, of an ample supply of voltage, current, power, speed, etc., and metering instruments, and practically all of the principal types of commutating, synchronous and induction machinery.

(*a*) The Standardizing Laboratory is equipped with a Weston laboratory standard ammeter, range with shunts, .075 to 500 amperes; a Weston laboratory standard D. C. voltmeter, range with multipliers 0 to 3000 volts; Weston laboratory standard wattmeters; a special Weston Potentiometer for current and e.m.f. measurement; a Leeds & Northrup Conductivity Bridge, standard resistances from a fraction of an ohm to a megohm, standard cells, standard capacities, etc., etc.

Alternating currents of several wave shapes and frequencies from 15-150 periods per second and voltages up to 200,000 is available.

(*b*) The Fourth Year Dynamo Laboratory.—In this laboratory, which is situated on the ground floor of the Engineering Building, all dynamos are motor driven. Speed regulation is attained either by varying the voltage supply to the motor or by varying the motor field current. Power is obtained from three independent sources of supply, two 75 k.w. D. C. direct connected units in the service plant and one 300 k.w. hour storage battery. All generators and motors are mounted on strong testing benches of different heights with slotted floor, so that any machine when placed on the bench may be quickly secured in any desired position. These benches are supported on longitudinal slotted rails and may be moved to any position in the laboratory and there bolted to the rail. An overhead 3 motor electric travelling crane permits of rapid transference of machines. All wiring is done below the floor level in passages provided for the purpose and special switchboards are provided for current distribution. Special testing tables fitted with switches, circuit breakers, etc., facilitate the work. Sixteen alternating current machines, including single. two and three phase generators, synchronous motors, synchronous converters, together with stationary and rotary induction apparatus are provided for alternating work. Large variation of wave form may be obtained by the use of specially shaped inductors and field poles. Induction motors with wire wound rotors serve as induction generators and frequency changers. The laboratory is likewise provided with about one hundred voltmeters, ammeters and wattmeters of standard make and of different ranges; also speed indicators, condensers, rheostats, standard resistances, etc., etc.

(*c*) The Third Year Dynamo Laboratory.—This laboratory, situated on the second floor of the Workman building, is similar in design to the Fourth Year Laboratory, all generators being motor driven and mounted on convenient benches, and similarly supplied with power. One hand operated travelling crane facilitates the movement of the machines. It is equipped with twenty to thirty commutating machines; constant potential generators of various types; shunt, series and compound wound motors; variable speed motors, boosters, dynamotors, closed and open coil constant current machines, varying in capacity to 40 kilowatts of many different makes. Some seventy-five voltmeters and ammeters are also provided, as well as the usual accompaniment of starting boxes, controllers, rheostats for absorbing power, etc.

(*d*) High Tension Laboratory.—This laboratory is equipped with a D.C.—A.C. motor generator set and four 10 K.W. 200-50,000 volt 60 cycle transformers, and one 5 K.W. 100-25,000 volt 60 cycle transformer, with switchboard and suitable controlling devices. Current and voltage transformers and 100,000 volt direct reading Kelvin electrostatic voltmeter are also provided.

(*e*) The Photometer Room.—This room is equipped with standard photometric apparatus for candle power measurements of arc and incandescent lamps.

(f) The Laboratory for special investigations adjoins the standardizing laboratory. Meter and transformer testing are also done in this room.

GEODETIC LABORATORY.

The equipment of this laboratory consists of:—

(1) Linear instruments.
  (*a*) A Rogers comparator and standard bar for investigating standards of length.
  (*b*) A fifty-foot standard and comparator for standardizing steel bands, chains, tapes, rods, etc.
  (*c*) A Whitworth end-measuring machine and set of standards.
  (*d*) A Munro-Rogers linear dividing engine.
(2) Circular instruments.
  (*a*) A Rogers' circular comparator and dividing engine.
  (*b*) Four level triers.
(3) Time.
  (*a*) An astronomical clock and clock circuit in connection with the observatory clocks.
  (*b*) Chronometers running on mean and sidereal time.
  (*c*) Chronograph.
(4) Gravity.—A portable Bessel's reversible pendulum apparatus with special pendulum clock and telescopic apparatus for observing coincidences of beats.
(5) A water gauge apparatus for testing aneroid barometers.

The laboratory and clock rooms are constructed with double walls and enclosed air spaces, and their heating is controlled by special thermostats, so that the temperature within may be brought to, and held at, any desired degree.

The ordinary course of instruction in this laboratory is described on page 248.

Astronomical Observatory.

The observatory equipment for the purpose of instruction in practical Astronomy consists of:—

1. A Bamberg prismatic transit with zenith attachment.
2. Five astronomical transits for meridian observations. Collimating telescopes.
3. A Troughton & Simms zenith telescope.
4. An astronomical transit in the prime vertical.
5. Sidereal and mean time clocks and chronometers.
6. Chronograph and electrical circuits by which observations and clock comparisons within or without the observatory may be made.

HYDRAULIC LABORATORY.

In this laboratory the student studies experimentally the laws governing the flow of liquids through orifices, pipes, weirs, etc., and also carries out experiments on the efficiency of various forms of water motors running under different conditions as regards head and supply.

The equipment includes:—Apparatus for the measurement of the discharge of water from orifices, nozzles, weirs., etc under varying conditions; arrangements for investigation of the loss of head by surface friction, and at curves and bends in pipes; Venturi meter for use at

different discharges; a hydraulic ram working against different heads; various water motors, including Pelton wheels, Girard impulse turbine, Brotherhood three cylinder rotary engine, Thomson inward flow reaction turbine, American turbine; apparatus for measurement of pressure due to impact of jets on surfaces of different forms; gauge testing appliances; Hele Shaw's apparatus for study of the stream lines in a perfect fluid, illustrating the flow round obstructions in a channel, lines of stress in plates, and numerous magnetic problems; numerous calibrated tanks, weighing appliances, and measuring apparatus in connection with the above.

MECHANICAL ENGINEERING LABORATORY.

The equipment of this Laboratory includes:—A belt-testing machine, capable of taking a six-inch belt at 15 feet centres (the machine includes special hydraulic dynamometers and a friction brake, and will absorb 15 H.P.); a Thurston railway-pattern oil-tester, fitted with water cooling and heating apparatus for varying the temperature of the brasses as desired; an Engler standard viscosimeter, and other necessary apparatus for the physical testing of lubricants; a specially designed hydraulic support and fittings for carrying out experiments on the action of cutting tools in the lathe; apparatus for experiments on the efficiency of pulleys and hoisting appliances, and on the efficiency of worm and other gearing; apparatus for governor-testing; apparatus for studying problems connected with the balancing of reciprocating engines; apparatus for testing of fans and blowers.

The Laboratory is used in connection with the courses in Mechanical Engineering subjects.

METALLURGICAL AND ASSAYING LABORATORIES.

These consist of a large furnace room of 2,200 sq. feet, for metallurgical operations, a furnace room for assaying of 1,300 sq. feet, a balance room, small chemical laboratory, and parts of other rooms, which are utilized for pyrometric and photo-microscopic work. The furnace room is fitted with a water-jacket blast-furnace, 21 inches inside diameter, for smelting lead and copper ores; also a hand reverberatory furnace for roasting ores, having a hearth 14 ft. by 6 ft., a Bruckner roasting furnace, and English cupellation furnace and a small gas producer.

It has also a large lead-lined chlorination-barrel for high pressures, with filter press, air pump, etc.

The furnace room adjoins the milling and ore dressing room (see below) and ores which have been crushed and dressed can easily be conveyed into the furnace room for roasting, smelting or leaching treatments.

In addition to this comparatively large scale plant, apparatus is being provided to enable the students to study in detail the more important metallurgical operations using quantities of ore or metallurgical products of usually not more than a few pounds in weight. With such appliances the work of the student can be of a more individual character than is generally possible with large scale plant, and the reactions which occur can be more easily and exactly studied.

For the purpose of small scale work there is a large crucible furnace which can be used with either natural or forced draught, a large

gas furnace which can be used either as an oven furnace or a muffle furnace, and a number of small muffle and crucible furnaces in the assaying laboratory.

Small blast-furnaces, lined with brick, have been constructed, and used successfully for smelting small quantities of copper and Cobalt ores. A Roots' blower has been provided for the blast furnaces, and connections for supplying forced draft have been made to the gas and reverberatory furnaces. Electric furnaces have been constructed for carrying on operations at very high temperatures, and there is a low voltage dynamo and storage battery for electrolytic work. Leaching operations on a small scale are conducted in stoppered bottles which can be agitated by machinery.

A powerful hydraulic press and a piece of apparatus for compressing gases by hydraulic power are available for experiments that have to be conducted under great pressure.

A small drop-testing machine has been constructed for investigating the mechanical properties of metals.

The Assaying Laboratory is equipped with a soft coal assay furnace, and with a number of muffle and crucible furnaces fired with coke; the large gas muffle furnace in the furnace room is also available for assaying purposes, and there is a small muffle furnace and a crucible furnace fired by gasoline.

Adjoining the assaying laboratory is the balance room and a small laboratory for chemical work.

In another room are a number of electrical pyrometers of both the Le Chatelier and Callendar type, and a micro-photographic outfit for recording the microscopic structure of metals and alloys. A polishing machine, worked by power has been installed to prepare the specimens for examination.

The courses of instruction in these laboratories are described on pages 234 to 238.

MINING AND ORE-DRESSING LABORATORIES.

The Department of Mining Engineering has one large laboratory for ore-dressing and a number of rooms of moderate size equipped for use as special laboratories, offices, lecture room, dark room, machine shop, etc. The effective floor space is about 7,500 square feet, in addition to which the departmental store rooms, ore bins, etc., have an area of 1,000 feet.

The ore-dressing laboratory proper has about 5,000 feet floor space and is 25 feet high in the centre.

It is equipped with two classes of apparatus. First, a large number of pieces especially designed for individual work on a small scale. Many of these are for elementary investigations and demonstrations of a theoretical nature, others are working reproductions on a reduced scale of typical ore-dressing and milling machines. Second, a complete plant of standard apparatus for ore crushing, sampling, milling, concentrating and for coal washing. The apparatus has been chosen from the best designs in common use and each important class of ore-dressing machinery is represented by two or more different types in order that comparative tests may be made. Each machine is so arranged that it may be used, tested and cleaned up independ-

ently, but when expedient, a number of machines can be connected by automatic conveyors and thus complete working plants of many kinds can be improvised, each of sufficient capacity to test large lots of material under approximately working conditions.

The chief pieces of apparatus in the laboratory are rock-breakers of four kinds—Blake, Dodge, Gates, and Sturtevant, for coarse crushing; gravity stamp mills of 600 and 950 lbs., respectively, and a small steam stamp for the fine crushing and amalgamating of gold ores; Huntington centrifugal roller mill, for crushing and amalgamating; high speed steel-tyred rolls for fine crushing; Sturtevant and Gate's grinders for preparing samples, and a number of ball mills, pebble mills and amalgamation pans for extremely fine grinding.

Following these there are Bridgman, Vezin, Jones and Brunton samplers, and a Callow belt screen and a series of trommels and hand and power shaking screens for sizing the crushed ores; two especially designed jigs of two and four compartments, with adjustable eccentric, cam and slide mechanisms, a pneumatic jig, a Taylor vibrating and several small hand and power jigs for coarse concentration; revolving, bumping and stationary tables; a stationary glass table; Frue vanner, Wilfley table, Bartlett table, Bartlett canvas table, Bell's classifiers and feeders etc., for separating valuable minerals contained in the fine sands and slimes; plates, pans and barrels for amalgamating gold and silver ores; vats and other apparatus for cyaniding, chlorinating and other leaching processes; spitzkasten, spitzlutte, magnetic separators, an electro static separator, coal washers, dolly tubs, and various other special pieces of ore dressing apparatus.

An hydraulic lift and a number of belt and bucket and hydraulic jet elevators, feeders, samplers, etc., are provided for use in heavy continuous work. The power chiefly used is electricity, generated in the University power and light station, and utilized through a number of electric motors conveniently placed near the machines to be operated, but steam is used for some pieces of apparatus and others may be driven by a pelton wheel. An ample supply of compressed air is also available. The department is equipped with suitable apparatus for electrical measurements, and is thus able to make frequent and accurate determinations of the amount of power used by each machine.

In addition to the main laboratory there are excellent facilities for advanced and research work—including a thoroughly equipped analytic and assay laboratory and a photograph room. The department possesses an excellent Fuess petrographical microscope, a good set of weighing and measuring devices ,and a number of pieces of special apparatus for advanced theoretical investigation.

The courses of instruction in these laboratories are described on pages 239 to 242.

PETROGRAPHICAL LABORATORY.

The Petrographical Laboratory, containing the chief rock collections of the University, is situated in the Chemistry and Mining building, and is arranged for the use of students in the Mining Course as well as for those desirous of taking advanced work, such as Graduate students and those taking Honour Courses in Arts. It is

provided with a number of petrographical microscopes by Seibert, Crouch, and Feuss, as well as with models, sets of thin sections, electro-magnets, heavy solutions, etc., for petrographical work.

A collection of typical rocks has been especially prepared for the use of students and a complete equipment for cutting, grinding, and polishing rocks, has been installed, which runs by electric power and gives excellent facilities for the preparation of thin sections for microscopic use.

For advanced work and pretrographical investigation Dr. Adams' extensive private collection of rocks and thin sections is available for purposes of study and comparison.

THE MACDONALD PHYSICAL LABORATORIES

The equipment of the Macdonald Physical Laboratories comprises: (1) apparatus for illustrating lectures; (2) simple forms of the principal instruments for use by the students in practical work; (3) various types of all important instruments for exact measurement, to be used in connection with special work and research.

The basement contains the cellars, furnaces and janitor's apartments at the west end of the building. The machine room—containing a small gas engine and dynamo, which are fitted for testing, but can also be used for light and power, a motor-alternator and a motor-dynamo—is situated at the extreme western corner of the basement and so as to be as far removed as possible from the magnetic and electrical instruments. Here is also the switch board for controlling the various circuits for supplying direct or alternating current to different parts of the building, and a Liquid Air Plant, consisting of a Whitehead Torpedo Air-compressor, capable of giving 250 atmospheres, driven by an 11-Horse Power Electric Motor, and a Hampson Liquefier with a capacity of 1 litre per hour. The Accumulator Room contains a few large storage cells, charged by the motor-dynamo, which are fitted with a suitable series-parallel arrangement and with rheostats for obtaining and controlling large currents up to 4,000 amperes for testing ammeters and low resistances, etc.

The Magnetic Laboratory contains magnetic instruments and variometers of different patterns, and also a duplicate of the B. A. Electro-dynamometer. The laboratory on the opposite side of the basement contains a Lorenz apparatus for the absolute measurement of resistance, constructed under the supervision of Prof. Viriamu Jones.

There is a Constant Temperature Room, surrounded by double walls, which contains a Standard Rieffler Clock, and is fitted for comparator work.

The ground floor contains at the western corner a small machine shop, fitted with a milling machine and suitable lathes and tools, driven by electric motors, and such appliances as are required for the making and repairing of the instruments, for which the services of a mechanical assistant are retained . There is also a store room for glass, chemicals and cleaning materials, and extensive lockers and lavatories for the use of the students.

The Main Electrical Laboratory is a room 60 feet by 40, and is fitted with a number of brick piers, which come up through the floor, and rest on independent foundations, in addition to the usual slate shelves round the walls. This room contains a large number of elec-

trometers, galvanometers, potentiometers and other testing instruments of various patterns, and adapted for different uses. It connects with a smaller room at the side, in which are kept the resistance boxes and standards, and also the capacity standards. A small research laboratory, adjoining the electrical laboratory, is fitted up for the study of electrical discharge in high vacua, and for work with Rôentgen and uranium radiation, and with ultra-violet light.

The first floor contains the main Lecture Theatre, with seats for about 250 students. The lecture table is supported on separate piers, which are independent of the floor. Complete arrangements are provided for optical projections and illustration. The Preparation Room in the rear contains many of the larger pieces of lecture apparatus, but the majority of the instruments, when not in use, are kept in suitable cases in the adjoining apparatus room. On the same floor there is the Heat Laboratory, devoted to advanced work in thermometry, pyrometry and calorimetry and also to such electrical work as involves the use of thermostats and the measurement of the effects of temperature. There are also two smaller rooms for professors and demonstrators.

The second floor is partly occupied by the upper half of the Lecture Theatre. There is also an Examination Room for paper work, a Mathematical Lecture Room, with a special apparatus room devoted to apparatus for illustrating Mathematical Physics ,and a special Physical Library chiefly devoted to reference books and periodicals relating to Physics. A store room, lavatories and Professors' Room occupy the remainder of the flat.

The third floor contains the Elementary Laboratory, a room 60 feet square, devoted to elementary practical work in heat, sound, light, electricity and magnetism. There is a Demonstrators' room adjoining, and an optical annex devoted to experiments with lenses, galvanometers, etc., which require a darkened room. On the other side of the building there is a spectroscopic room, containing a six-inch Rowland grating, with mountings by Brashear, and other large spectrometers and polarimeters. Also a series of smaller optical rooms, including a photometric room, especially fitted for Arc photometry, and a dark room for photographic work. Communication between the different flats is facilitated by means of a hydraulic elevator. The building is lighted throughout by electricity, and heated by hot water. The walls are of pressed brick, and the floors of hard maple. There is a ventilating system, consisting of Tobin tubes and suitable exit flues, assisted by a fan in the roof.

A special elementary laboratory for the First Year Medical and Arts students has been fited up in the attic.

LABORATORY OF PHYSIOLOGY.

The department of Physiology occupies a large portion of the top floor of the Laboratory Wing of the Medical Building. The space alloted to this department is divided up into a large students' laboratory, 45 by 58 feet, and smaller rooms for preparation and research. The main laboratory is furnished with enough benches, apparatus, etc., to allow of 80 students working at one time. The research rooms are supplied with the more complicated apparatus necessary for extended research work.

STRENGTH OF MATERIALS LABORATORIES.

These laboratories are equipped with apparatus for the determination of the physical properties of the materials of construction and for illustrating the fundamental laws of the strength of materials. The equipment includes:—

(*a*) A Riehlè testing machine of 60,000 lbs. capacity, a Wicksteed 100-ton and an Emery 50-ton machine for testing the tensile, compressive and transverse strength of the several materials of construction. To the Wicksteed has been added a specially designed arrangement, by which the transverse strength of girders and beams up to 26 ft. in length can be determined. Special holders have also been designed and made in the laboratory for investigating the tensile and shearing strength of timber, and for the testing of wire ropes, belts, etc.

(*b*) An Impact Machine, with a drop of 30 ft., and with gearing which will enable specimens to be rotated at any required speed, and the blows to be repeated at any required intervals. By means of a revolving drum, a continuous and accurate record of the deflections of the specimens under the blows can be obtained.

(*c*) A Torsion Machine with a specially designed angle-measurer, by which the amount of the torsion can be measured with extreme accuracy.

(*d*) An Accumulator, furnishing a pressure of 3,600 lbs. per square inch, which is transmitted to the several testing machines, and ensures a perfectly steady application of stress, an impossibility when any form of pump is substituted for an Accumulator. An automatic electric motor has been designed in the laboratory and constructed for the purpose of actuating the accumulator.

(*e*) A Blake and a Worthington Steam Pump, designed to work against a pressure of 3,600 lbs. per square inch. The Accumulator may be actuated by either of the pumps, and, if at any time it is necessary to do so, either of the pumps may be employed to actuate the testing machine direct. When in operation the work of the pump and the accumulator is automatic.

(*f*) Extensometers of the Bovey, Ewing, Unwin, Martens, Marshall and other types.

(*g*) Portable cathetometers, and also a large cathetometer specially designed and constructed for the determination of the extensions, compressions and deflections of the specimens under stress in the testing machines.

(*h*) Various electric motors for working the several machines.

(*i*) A drying oven for beams up to 26 ft. in length. The hot air in this oven is kept in circulation by means of a fan driven by an electric motor.

(*j*) Numerous gauges, amongst which may be specially noticed an Emery pressure gauge, graduated in single lbs. up to 2,500 lbs. per square inch. All of the testing machines are on the same pressure circuit, and are connected with the Emery gauge and also other standard gauges, including recording gauges. This arrangement provides a practically perfect means of checking the accuracy of the testing.

(*k*) Special apparatus and recording gauge for the testing of hose, etc.

(*l*) Dynamometers for measuring the strength of textile fabrics, the holding power of nails, etc.

(*m*) Apparatus for determining the elasticity of long wires.

(*n*) Apparatus for determining the hardness of materials of construction.

(*o*) Zeiss and other microscopes.

(*p*) Delicate chemical and other balances. A very important part of the equipment is the Oertling balance, capable of indicating with extreme accuracy weights of from .00001 lb. up to 125 lbs.

(*q*) Apparatus for the microscopic study of metals and for microscopic photography.

(*r*) Micrometers of all kinds.

(*s*) A transverse bending machine which is adapted for loads up to 3,000 lbs and for beams of 10 ft. span and a testing machine for applying bending and torsion simultaneously.

(*t*) Small beam testing machines used to illustrate the laws of the bending of beams, both when the ends are free and when they are fixed.

(*u*) Two small tension machines, in which experiments are made on metals, the strains being within the elastic limit.

(*v*) Apparatus with experiments for long wires, adapted for experiments on wires 60 ft. in length.

(*w*) A lever machine for experiments on alternate twisting.

(*x*) A testing machine for breaking tests on wires.

(*y*) A powerful hydraulic press for compression tests on metals, cements, stone and similar materials.

(*z*) Moments of Inertia apparatus.

THERMODYNAMIC LABORATORIES.

The steam Laboratory is furnished with an experimental steam engine of 120 I.H.P., specially designed for investigating the behaviour of steam under various conditions; the cylinders are 6½ inches, 9 inches, 13 inches and 18 inches in diameter, and the stroke of all the pistons is 15 inches. The cylinders can be so connected as to allow of working as a simple, compound, triple, or quadruple expansion engine, either condensing or non-condensing, and with any desired rate of expansion. The jackets are so fitted as to permit of measuring independently the water condensed in the cover, barrel, or bottom jacket of each cylinder, and the engine can be worked with any desired initial pressure up to 200 lbs. per square inch. The measurements of heat are made by means of large tanks, which receive the cooling water and the condensed steam. There is an independent surface condenser and air pump. Two hydraulic absorption brakes and an alternative friction brake serve to measure the mechanical power developed.

This Laboratory also contains the following machinery:—

A Robb automatic cut-off engine, having a cylinder 10½ inches in diameter by 12 inches stroke. This engine is specially fitted up for the measurement of cylinder temperatures, and can be run at speeds up to 300 revolutions per minute.

An automatic high speed engine by Macintosh & Seymour, having a cylinder 12 inches diameter by 12½ inches stroke. In connection with this engine there is an automatic recording apparatus for registering the load on the brake.

A Leonard horizontal engine, having a cylinder 8 inches diameter by 9 inches stroke, specially fitted for instructional work in valve setting and provided with an independent surface condenser.

A "Dake" steam engine of 4 H.P.

A two stage air compressor taking 40 H.P., and having cylinders 10 inches and 17 inches in diameter, by 15 inches stroke. The compressor delivers its air into reservoirs placed beneath the floor of the machine shop, and is provided with an intercooler whose capacity can be varied as desired.

A high speed horizontal engine having a cylinder 6 inches diameter by 9 inches stroke, and operated by compressed air.

A gas-fired preheater for the above engine.

A standard 9½ inch Westinghouse air brake pump, fitted for testing and for supplying compressed air for experimental and other purposes.

A non-rotative Blake steam pump, having steam and water cylinders, 4½ and 2¾ inches diameter and 4½ inches stroke.

The Gas Engine Laboratory is equipped with:—

A horizontal gas engine by the National Gas Engine Company, having a cylinder 12 inches diameter by 20 inches stroke, and developing 40 B.H.P.

A suction-type producer for the above, with the necessary scrubbers and gas cleaning apparatus.

A down draft producer designed for working with lignite and bituminous coal.

A standard 4 inch gas meter, gasometer, and exhauster.

An Atkinson "Cycle" gas engine of 6 B.H.P., working on city gas.

An Otto type gas engine (built in the workshops of the Department), having a cylinder 8½ inches diameter by 12 inches stroke, and giving 10 B.H.P., with city gas.

A two cylinder 4 cycle gasoline engine (built in the workshops of the department), and giving 8 B.H.P.

A 12 H.P. Compound steam engine and a 4 H.P. Blackston Petrol oil Engine.

The smaller apparatus belonging to the laboratories includes the necessary equipment of weighing machines, brakes, calorimeters, thermometers, gauges, pyrometers, fuel testers, indicators, planimeters, and a Moscrop recorder.

The boiler installation of the Engineering Building supplies steam for heating and power purposes, and is so arranged as to be available for experimental work in connection with the Thermodynamic Laboratory. It comprises boilers of five distinct types as follows:—

One Cornish boiler, for heating service, rated at 50 H.P.

One locomotive boiler, Belpaire type, 100 H.P.

One internally fired tubular boiler, 120 H.P.

Two Babcock-Wilcox water-tube boilers, each 60 H.P.

One Yarrow water-tube boiler, fitted in a closed stokehold, for working under forced draft, rated at 150 H.P.

These boilers are provided with the necessary tanks, weighing-machines and apparatus for carrying out evaporative tests.

ZOOLOGICAL LABORATORIES.

The Zoological Department occupies the whole of the uppermost floor of the east wing of McGill College and the larger portion of the floor immediately below.

It consists of:—

(*a*) A large laboratory affording accommodation for a class of 100 students.

(*b*) A smaller laboratory capable of seating about 18 students.

(*c*) Three smaller laboratories fitted up for purposes of research.

Dissecting trays, simple and compound microscopes, reasonable quantities of the ordinary reagents and of glass are provided by the department, but students provide themselves with razors for cutting sections.

The Department is provided with four large tanks and a number of smaller ones in order to maintain a supply of fresh specimens throughout the winter.

The subjects for practical work, are, as far as possible, selected from species inhabiting the vicinity of Montreal.

The laboratories are well provided with thermostats, microtomes, apparatus for microphotographic work and other instruments required for advanced research. There is also a library attached to the department.

2. MUSEUMS.

ANATOMICAL MUSEUM.

DIRECTOR:—PROFESSOR F. J. SHEPHERD.

The disastrous fire of 1907 completely destroyed the Museum of Anatomy, but steps are being taken to replace the teaching material, and now the department is well supplied. Many specimens have been received from the Army and Navy Museum of Washington, D.C., and from graduates. Several institutions also have promised help.

A complete set of Steyer's casts has been imported from Germany and a large number of preparations from Tramond of Paris. A set of brain sections has been prepared by Prof. MacCarthy and a number of new frozen sections and dissections of special parts have been placed on exhibition.

MUSEUM OF HYGIENE.

DIRECTOR:—PROF. T. A. STARKEY.

The Museum has been established from the interest accruing through the endowment of the Chair of Hygiene by Lord Strathcona and Mount Royal in 1893.

With a view to exhibiting not only specimens of the best and most approved types of appliances in each particular branch of Public Health, but also examples of types which are to be avoided on hygienic principles, the material in the Museum has been re-arranged. In or-

der to facilitate study and reference, the specimens have been classified upon a decimal system under the following sections:—

1. *Disinfection.*—Including disinfecting apparatus, disinfectants, and antiseptics.

2. *Lighting and Heating.*—This section includes types of all known methods of heating and ventilation.

3. *Water.*—Showing underground water and supplies drawn from it; methods of purification on large and small scales, including domestic filtration; exhibits of all the common modes of pollution of water supplies.

4. *Buildings.*—Effects of ground moisture on dwellings; building materials of all kinds; and measures to be taken against dampness and foul air.

5. *Soil.*—Various kinds of soils; relation between soil and dampness; permeability of soils to gas and water; composition of soils.

6. *Air.*—Including ventilation, climate and meteorology, with apparatus illustrative of each class.

7. *Drainage and Refuse Disposal.*—This section includes every description of sanitary appliance used in building, drainage, and ultimate disposal of refuse, both liquid and solid. The section also includes types of faulty methods.

8. *Footstuffs and Clothing.*—Adulterations and modes of transmission of disease.—Materials and their value for clothing.

9. *Vital Statistics.*—Administration, etc.

10. *Bacteriology and Pathology relating to Public Health.*—Including specimens and slides of all the common micro-organisms, pathogenic and non-pathogenic; specimens of pathological conditions met with in meats, etc.

In addition to the regular Museum Exhibit there is a collection of over 1,000 lantern slides illustrative of phases of Hygiene. The slides have been so arranged as to be available for demonstrations as hand specimens. These slides as well as all the specimens in the Museum are card catalogued, and a projecting lantern is available for their demonstration.

The following are some of the principal exhibits:—Set of Knight's diagrams and models; working models and full sized specimens illustrating house-drainage, closets, etc., sewer air, movements of soil air; Doulton's models of drainage; damp-proof construction, absorption of moisture in building materials; ventilation appliances; combined heating and ventilation; automatic regulation of heating and ventilation; building materials; fire proofing, estimation of carbonic acid and moisture in the air; meteorological apparatus; water supply, water piping; water filtrations of public and domestic supplies; pollution of water supplies; ground water level; sewage and refuse disposal plants; sanitary fitting and plumbing; food supply; food adulteration; examination of milk supplies; disinfection; disinfectants.

A complete descriptive catalogue containing a large amount of condensed information with reference to the exhibits, has been published, and may be obtained at the office of the Medical Registrar.

PATHOLOGICAL MUSEUM.

E. L. JUDAH, PREPARATOR AND OSTEOLOGIST.
MAUDE E. ABBOTT, B.A., M.D., CURATOR.
PROF. J. G. ADAMI, DIRECTOR.

Since the organization of the Medical Faculty the Pathological Museum has been one of its most cherished objects. Some specimens still remain upon its shelves donated by the founders of the College (notably a unique case of Cor. Biatrium Triloculare, reported by Dr. Andrew Holmes in 1823), and for the last fifty years the rich pathological material furnished by the Montreal General Hospital has been collected here. Many specimens are also now yearly received from the Royal Victoria Hospital, and the Faculty is also indebted to many medical men throughout Canada and the United States for important contributions.

The recent fire did severe damage to the Museum and its contents, but, fortunately, through the efforts of the Curator and Staff and the active assistance of a large body of students, much that is of great value was saved.

The singularly rich collection of disturbances of the heart and vascular system, including Dr. Osler's series of cases of acute endocarditis, is almost intact, as are also the collection of diseases of the respiratory, urinary, nervous and male genital systems, and of the spleen and ductless glands.

To restore the loss thus sustained generous gifts have already been received from several sources, of which first and foremost must be mentioned a collection of more than 200 specimens illustrating the different forms of injury and repair of the main bones by gun-shot wounds, all admirably mounted, from the Surgeon-General of the United States and the Army Medical Museum at Washington, also other comparative, osteological and morbid anatomical specimens from the same source—an equal amount and of almost equal value. The Museum is also indebted to Prof. J. Orth of Berlin, for some valuable duplicates of specimens from the great Virchow Museum in Berlin, as again to various museums connected with the great London hospitals, among which St. Bartholomew's deserves particular mention. With these and other gifts promised the Museum, this department should rapidly be restored, not merely for teaching purposes, but to its position as the most important pathological museum on this Continent.

THE PETER REDPATH MUSEUM.

CURATOR:—PROF. D. P. PENHALLOW, D.Sc.

The large and valuable collections in Botany, Zoology, Mineralogy and Geology are arranged in such a manner as to facilitate the work in these departments.

The general arrangement is as follows:

1. The Botanical Room on the ground floor contains the Herbarium, consisting of 50,000 specimens of Canadian and exotic plants and collections illustrating structural and economic botany.

2. On the first floor is a room over the entrance hall, in which are cases containing archæological and ethnological objects, including collections from the Queen Charlotte Islands, from Egypt, and from South Equatorial West Africa.

3. This room opens into the great Museum Hall, on each side of which are alcoves with upright and table cases containing the collections in Palæontology arranged primarily to illustrate the successive geological systems, and subordinately to this, in the order of zoological and botanical classification, so as to enable the student to see the general order of life in successive periods, and to trace any particular group through its geological history.

4. At the extreme end of the Hall are placed the collections of minerals and rocks, arranged in such manner as to facilitate their systematic study. In the centre of the Hall are economic collections and large casts and models.

5. In the upper storey or gallery of the great Hall are placed the zoological collections; the invertebrate animals in table cases in regular series, beginning with the lower forms; the vertebrate animals in upright cases, in similar order. THE PHILIP CARPENTER COLLECTION of shells is especially noteworthy for its arrangement and completeness.

Papers or memoirs relating to certain type specimens in the collections can be obtained from the Assistant Curator. Students have access to this Museum, in connection with their attendance on the classes in Arts in the subjects above named, and also by tickets which can be obtained on application. Classes of pupils from schools can be admitted on certain days under regulations which may be learned from the Professors or from the Registrar of the University.

3. WORKSHOPS.

The Workshops, erected on the Thomas Workman Endowment, have a total floor area of more than 20,000 square feet.

Equipment.—The Carpenter Shop and the Pattern Shop contain thirty-eight carpenters' and pattern-makers' benches complete with the necessary sets of hand tools, twenty-two wood-turning lathes with their turning tools, a large pattern-makers' lathe for faceplate work, one circular saw bench, a jig saw, a band saw, two wood trimmers, a surface planer, a thickness planer, a mortising machine, a saw-sharpener, and one universal wood-working machine.

The Smith Shop is provided with sixteen Sturtevant forges which are power-driven and are connected with an exhaust fan. There is a power hammer, and the necessary equipment of anvils, swage blocks, sets, flatteners and other tools. Provision is made for instruction in soldering and brazing.

The Foundry has benches, tools and apparatus for bench and floor moulding and core-making, and is able to accommodate twenty students. A gas-fired brass melting furnace, a cupola for melting iron, and the necessary core-ovens and core-benches give facilities for undertaking iron foundry work in green and dry sand, and for brass

moulding. The shop is served by a hand travelling crane of one ton capacity.

The Machine Shop has twelve 18-inch engine lathes, one 18-in turret lathe fitted for stud and screw making, one 27-inch engine lathe, one 72-inch surfacing lathe, one brass-finishing lathe, one 36-inch vertical drilling machine with compound table, one universal milling machine with vertical milling attachment and dividing headstock, one planer capable of taking work up to 24" x 24" x 5 ft., one 9-inch slotting machine, one 16-inch shaper, one universal grinding machine, centering machine, a cutter grinder, a tool grinder and a buffing and emery grinding machine. There are vise benches for eighteen students, with the necessary hand-tools, and a marking-off table. The tool-room contains a full equipment of drills, reamers, milling cutters, and accessories, gauges, callipers, and other measuring instruments.

All the machinery in the workshops is driven electrically by motors taking power from the generating station in the Macdonald Building.

THE GRADUATE SCHOOL.

Graduate instruction was for many years offered in the various departments of McGill University without definite organization. The increased demand for such work led the Corporation in 1906 to formally organize and extend the higher teaching work of the University. A Graduate School was, therefore, established, and in it are enrolled all the graduate students in the University who are following advanced courses of study in subjects which in the undergraduate work fall within the scope of the Faculties of Arts and of Applied Science.

The Faculty of the Graduate School consists of the professors of the Faculties of Arts and of Applied Science, but the initiative and administration of the School is placed in the hands of a Committee selected from these Faculties and known as the Committee on Graduate Studies. The Chairman of this Committee is the official head of the Graduate School. The advanced courses of study offered in the Graduate School lead to the degrees of Master of Arts, Master of Science, and Doctor of Philosophy.

Instruction for students of the Graduate School is provided in the following departments of study which at present rank as "Subjects":—

Philosophy, including Psychology.
History.
Economics and Political Science.
Greek Language and Literature (including Grecian History).
Latin Language and Literature (including Roman History).
French Language and Literature.
German Language and Literature.
En lish Language and Literature.
Semitic Studies.
Archæology.
Comparative Philology.
Education.
Mathematics.
Physics.
Chemistry.
Botany.
Zoology.
Geology and Mineralogy.
Thermodynamics and Theory of Heat Engines.
Theory of Elasticity, Strength of Materials and Theory of Structures.
Hydrodynamics and Hydraulics.
Applied Electricity.
Theory of Machines and Machine Design.
Metallurgy.
Mining.

The requirements for the several higher degrees in course are as follows:—

Degree of Master of Arts.

1. Candidates must hold the Degree of B.A. or B.Sc. (in Arts) from McGill University, or its equivalent.

2. Candidates must have taken

(*a*) One year of resident graduate study at McGill University; or

(*b*) Two or more years of private work; the amount of such work required may be stated to be the equivalent of one year of academic study.

3. One, two or three subjects may be taken.

4. One of these subjects shall be designated as the Major Subject and special attention shall be devoted to it. It must be a subject which the student has already studied in his undergraduate course, and the work required in it will represent an attainment in knowledge far in advance of that required for the B.A. Degree. The Minor Subject, or Subjects, may be selected from those of the undergraduate course of the Third or Fourth Year, which have not already been taken by the candidate. Not more than one-third of the candidate's time for the year shall be devoted to these subjects. The student shall pass an examination in each of the subjects of his course.

5. The student shall also present a thesis on some topic connected with his Major Subject. The title of his thesis must have been previously submitted to the Committee on Graduate Studies and the Head of the Department concerned, for their approval. The thesis must show evidence of distinct ability in dealing with the subject selected, and must also display good literary style.

6. Graduates possessing a Bachelor's Degree, who act as Demonstrators or Tutors in the University for the entire session may proceed to the Degree of M.A., and, in so doing, may at the discretion of the Department with which they are

connected, and the Committee on Graduate Studies, omit a portion of the course of study. They shall, however, be called upon to pass an examination on the course of study which they have followed, and shall in all cases submit the thesis prescribed for that Degree. If, however, they desire this year's work to count as one of the three years of study required for the Ph.D. Degree, they must make their course of study conform to the Ph.D. requirements.

N.B.—The first year's course of study for the Ph.D. Degree will cover the requirements of the M.A. course, but, if such a course of study be followed, a thesis must be submitted and approved before the Degree of M.A. is conferred. If, however, the student continues his course of study and takes the Degree of Ph.D., the Degree of M.A. will be conferred with the Degree of Ph.D., in which case no special thesis will be required for the former.

Degree of Master of Science.

1. Candidates must hold the Degree of B.A. or B.Sc. from McGill University, or its equivalent.

2. Candidates must have taken

   (*a*) One year of resident graduate study at McGill University; or

   (*b*) Two or more years of private work; the amount of such work required may be stated to be the equivalent of one year of academic study.

3. The course of study followed by the candidate shall be of an advanced character, being the equivalent of that required for the degree of M.A., and shall lie in the domain of pure or applied science. It shall be selected from *one* of the last thirteen subjects in the list given above. Geodesy and Ore Dressing also constitute subjects in the case of this Degree. This course of study must have been previously submitted to the Head of the Department and to the Committee on Graduate Studies and have received their approval.

4. The candidate shall also present a thesis on some subject connected with his course of study. The title of this

thesis must have been previously submitted to the Head of the Department and to the Committee on Graduate Studies and have received their approval. This thesis must show evidence of distinct ability in dealing with the subject selected and must also display good literary style. It may deal with some very special topic, but the course of study followed by the student must cover a much wider field.

5. Graduates possessing a Bachelor's Degree, who act as Demonstrators or Tutors in the University for at least one entire session, may proceed to the Degree of M.Sc., and, in so doing, may, at the discretion of the Committee on Graduate Studies, omit a portion of the course of study usually required. They shall, however, be called upon to pass an examination on the course of study which they have followed, and shall in all cases submit the thesis prescribed for the Degree.

Degree of Doctor of Philosophy.

1. The candidate for the Degree of Doctor of Philosophy must hold the Degree of B.A. or B.Sc. from McGill University, or its equivalent.

2. He must have followed a course of at least three years' resident graduate study.

3. He must select one Major Subject and one Minor Subject. The Minor Subject selected must be related to his chief line of work. This Minor Subject shall have devoted to it about one-quarter of the instruction given during the entire course.

4. The candidate must satisfy the Committee that he has a reading knowledge of both French and German before he will be permitted to enter upon the course of the second year.

5. The examination on the Major Subject shall cover not merely the formal courses of instruction which have been taken, but the candidate must show that he possesses a good general knowledge of the whole science or branch of learning which he has selected as his Major Subject. A similar general, though less detailed, knowledge shall be required in the case of the Minor Subject.

6. The candidate must also prepare a thesis which must display original scholarship or show marked ability to conduct research. If the thesis be accepted, two hundred printed copies of it must be deposited with the University Librarian before the candidate will receive his diploma.

The University has decided to exact a very high standard in the case of this Degree and, at least three years of study are therefore demanded.

To meet immediate needs, the University has decided to offer at once the complete three years' course leading to the Degree of Doctor of Philosophy in the following subjects taken as Majors:—

Philosophy.
Physics.
Chemistry.
Zoology.
Theory of Elasticity, Strength of Materials and Theory of Structures.
Hydrodynamics and Hydraulics.
Semitic Studies.

Students desiring to proceed to the Degree of Doctor of Philosophy in subjects other than those mentioned above may communicate with the Chairman of the Committee on Graduate Studies (Dr. Adams) at the Chemistry and Mining Building, to whom also application should be made by all students desiring to follow courses of study in the Graduate School.

Owing to the fact that in future all theses submitted by successful candidates for higher degrees will be bound and placed in the Redpath Library, candidates for such degrees are advised that the Committee on Graduate Studies will henceforth require all theses to be prepared in a uniform manner and in accordance with the following specifications:—

1st.—The paper is to be of uniform size 8¼ x 10 inches, and of substantial quality.

2nd.—The left-hand margin is to have a uniform width of 1½ inches.

3rd.—All Theses should be type-written if possible.

4th.—No binding is to be employed, but the loose sheets will be placed in a manilla envelope in the order of their pagination.

Paper of standard size and quality may be obtained of E. M. Renouf, Ltd., 472 St. Catherine St. West, Montreal.

All theses for 1909-10 *must be in the hands of the chairman of the Committee on Graduate Studies on or before April* 10th, 1910. *No thesis received after this date will be accepted.*

ROYAL VICTORIA COLLEGE.

The institution of the Royal Victoria College, in September, 1899, was a direct continuation of the work begun in 1883, during the Principalship of the late Sir William Dawson, when Lord Strathcona and Mount Royal placed a sum at the disposal of the University of McGill, for the endowment of a College and classes for women. For many years previously it had been hoped by those interested in the education of women in Montreal that the University would extend its benefits to women, but the means necessary for carrying out such an aim had not been available. The classes were organized in 1884 as a special course in the Faculty of Arts, held at McGill College, separate in the main from those for men, but under identical conditions. In some of the work of the Third and Fourth Years, and in the Honour Courses, the classes were held jointly.

The ultimate aim of Lord Strathcona had been the foundation of a place of residence, and, with this object, he announced his intention of building and endowing the Royal Victoria College. By the opening of this Institution the opportunity of residence and college life is given to women-students of McGill University, working in accordance with the system previously organized in the special course in Arts, but under greatly improved conditions. A share in the advantages of college life is offered also to the non-resident women-students of the University, who are henceforth also students of the Royal Victoria College. Additional elements have been added in the organization of a Musical Department, now superseded by the McGill Conservatorium of Music, and in the institution of Resident Women Tutors. These additions are in accordance with the general aim of the College; viz., the higher education of women, and mainly to qualify them to

take Degrees in Arts (including Pure Science), and to provide them with instruction in those branches of a liberal education necessary thereto and in such other subjects as may from time to time be determined.

The College being a constituent College of McGill University, its students, whether graduate students, undergraduates, conditioned students, or partial students, follow the courses in Arts and Pure Science offered by the University (see pages 93 to 104).

Lectures are given by the Professors and Lecturers of the University, either in the College or in the University buildings, and students attend the University laboratories for practical instruction. In addition to the instruction given in lectures and laboratory practice, the students of the Royal Victoria College are assisted in their studies by the Resident Tutors.

THE COLLEGE BUILDING.

The College is situated on Sherbrooke Street at the head of Union Avenue, in close proximity to the University buildings and to the slopes of Mount Royal. The building is fire-proof, and much thought and artistic care have been given to the furnishing and decoration.

On the ground floor are the offices of the Administration, including the rooms of the Warden and Secretary, the Professors' common room, lecture rooms, students' common room and a spacious dining hall. On the first floor are other lecture rooms, the library, reading-room, a handsome assembly hall, and a few rooms for resident students. The second and third floors are devoted to the rooms of the resident students and tutors. These are of varying size and plan. Each student has a separate study bedroom. The entire use of a sitting-room can be obtained, and arrangements may be made for a sitting-room to be shared by the occupants of the two or three bedrooms immediately adjoining. The rooms are completely furnished, and no article of furniture need be brought by the students.

In addition to the lawn at the back of the College, the students are entitled to use, subject to regulations, the grounds of McGill University, with its tennis-courts, skating-rink, etc.

A nucleus of a College Library has been formed with a set of books, comprising the chief stated books and others referred to in connection with the University curricula, the modern language course being especially well represented. There are also works of general literature. The Library is a reading-room, and the books are not taken away. The students have access also to the University Lending Library.

Students of Music have the use of pianos in a large practising-room, and, at certain hours, in other parts of the building.

A large Gymnasium is provided, fully equipped in accordance with modern requirements. In connection with the Gymnasium there are bath-rooms and dressing-rooms.

The health of the resident students is under the charge of a competent physician practising in Montreal, who may be consulted free of charge. Every student applying for admission to Residence is required to forward a medical certificate on a form provided by the College.

Students of the Royal Victoria College, as students of McGill University, are entitled to the use of the University Library, containing about 121,000 volumes, and the Peter Redpath Museum, containing large collections in Mineralogy, Palæontology, Zoology, Botany, Archæology, and Ethnology, and to work in the physical, chemical, zoological, botanical and other laboratories. (For particulars of laboratories, etc., see pp. 320 to 326.)

BOARD AND RESIDENCE.

Residence in the College buildings is open to graduate students, undergraduates, conditioned students, or partial students, but the last are not received in residence unless they take courses of study approved by the Faculty of the College. The charge for board and residence, in addition to the sessional fees for tuition (see pp. 65 to 67), is $290. An addi-

tional charge, varying from $25 to $60, is made for the use of a private sitting-room shared by two students, or for the sole use of a private sitting-room. These charges cover the University Session, 27th September—12th May, and the Summer Classes, May 1st—15th June, and other periods, if necessary, for examinations. A deduction of $50 is made in the case of students who go out of residence at the end of the University Session.

Applications for admission or further particulars should be addressed to the Warden, Royal Victoria College, Montreal.

PHYSICAL TRAINING.

The Gymnasium is in charge of a fully qualified Physical Teacher. The system of gymnastics taught includes the various forms of gymnastics considered beneficial, the work being based on anatomical and physiological laws. The exercises aim at producing the highest degree of health in each individual and thus to contribute to mental as well as physical efficiency. To this end all undue exertion is avoided, and the work is made as recreational as possible. The exercises are also of a corrective character to counteract bad and harmful positions so often assumed during study hours. Especial attention is given to the development of the chest, since a good lung capacity is the foundation of a really healthy constitution. All students are examined by the Medical Director before taking part in the classes or other physical exercises organized by the College, and a remedial gymnastic course is arranged for undergraduate students with spinal curvature, or who are physically unfit for the ordinary class work.

The Gymnasium is also used for Fencing and Basket Ball, and for other indoor games. Lawn Tennis can be played on the College lawn during the summer months.

Undergraduate students of the First Year are required to attend the Gymnasium for two periods a week; undergraduate students of the Second Year for two short periods a week; undergraduate students of the Third Year for one period a

week. Partial students in residence are also required to attend.*

EXHIBITIONS AND SCHOLARSHIPS.

For a statement of the Exhibitions and Scholarships open to women students of the University, see pp. 43 to 54.

In addition to these, and further to encourage residence within the College walls of students who might otherwise arrange to board in the city, the Warden and Staff are empowered to make nominations in any of the four College years to not more than three additional Exhibitions of the value of $100 each.

MUSIC.

Instruction in Music is offered at the McGill Conservatorium of Music,—Director, Dr. H. C. Perrin; Miss Clara Lichtenstein, Vice-Director. The subjects of instruction carried on in the Conservatorium are:—Pianoforte, Singing, Organ, Violin, Violoncello, and all Orchestral Instruments; Harmony, Counterpoint, Canon and Fugue, Composition, Form, Analysis, History of Music, Theory, Elements of Music, Orchestral Class, Ensemble Playing, Piano-Accompaniment, Part Singing, Choir Singing, Sight Singing, Operatic Class, English, French, German, Italian, Elocution. Students may prepare for degree examinations in Music of the University, or for other examinations recommended by the Conservatorium.

For information regarding courses in music leading to degrees, see Calendar, page 178, and also the separate syllabus issued by the Conservatorium of Music.

For Time Table of lectures in Arts, see first part of Calendar.

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* In all cases of absence the student is required to report to the Physical Instructor.

MACDONALD COLLEGE.

GENERAL STATEMENT.

Macdonald College, which is incorporated with McGill University, was founded, erected, equipped and endowed by Sir William C. Macdonald for the following among other purposes:—

1. For the advancement of education; for the carrying on of research work and investigation and the dissemination of knowledge; all with particular regard to the interests and needs of the population in rural districts.

2. To provide suitable and effective training for teachers, and espcially for those whose work will directly affect the education in schools in rural districts.

Recognizing the importance of adequate education, adapted to the needs of the rural communities, which are the great producing classes of the country, this College will labor in sympathy with all other educational effort for the development and increase of intelligence, of power, ability and skill, and of willingness to co-operate for the common good in each locality as well as in the nation at large. Therein lies the reason for arranging the work of the College into a School for Teachers, a School of Agriculture, and a School of Household Science. Increase of productiveness, with improvement of products in the field and in the industries of the farm and the town, greater comfort and enjoyment in the home, a better taught school for the children, and a nobler sense of the duties and responsibilities of life—these are some of the advantages which Macdonald College hopes to assist in providing for Canada.

The College occupies a beautiful site, overlooking the Ottawa River at Ste. Anne de Bellevue, twenty miles west of Montreal. The main lines of the Grand Trunk and the

Canadian Pacific railways pass through the property, and the stations of both railways are within its boundaries.

The College property comprises 561 acres, and has been arranged into four main areas, viz.: (1) the Campus, with lawn, school garden, and recreation fields for boys and girls; (2) Experimental Grounds, with plots for illustration and research in grains, grasses, and flowers; (3) the Small Cultures Farm for horticulture and poultry keeping; and (4) the Live Stock and Grain Farm extending to 387 acres.

THE GENERAL ORGANISATION.

The College is divided into three schools, and a student is enrolled in that one in which the major portion of his work is taken:

(1) *The School of Agriculture,* which aims to provide a thorough theoretical and practical training in the several branches of Agriculture.

(2) *The School for Teachers,* where will be offered a comprehensive and thoroughly practical training in the art and science of teaching.

(3) *The School of Household Science,* in which young women receive training which will make for the improvement and greater enjoyment of home life.

THE GOVERNMENT.

Macdonald College is an incorporated College of McGill University.

Under the statutes the Governors of McGill University have constituted the Principal of Macdonald College, together with such other members of the staff of Macdonald College and such other persons as the Governors may see fit to appoint from their own number or otherwise, as the Macdonald College Committee. It is the function of this Committee to direct the educational policy and draw up a suitable curriculum, and to make and enforce regulations concerning the courses of study and teaching, the College examinations, the

admission of students, the amount and mode of payment of fees, and the discipline and internal government—the whole subject to report to the Governors and at least once a year to Corporation.

All courses given in Macdonald College leading to a degree in the University, the examinations held in connection therewith, and fees payable in respect of such courses and examinations, are subject to the approval and under the control of the Corporation of McGill University.

Courses for the training of teachers for the Protestant Schools of the Province of Quebec, together with the examinations held in connection therewith, are under the direction of the Teachers' Training Committee, constituted as set forth under the "School for Teachers," on page 375, such training and examinations being subject at all times to the regulations of the Protestant Committee of the Council of Public Instruction.

OFFICERS OF INSTRUCTION.

James W. Robertson, LL.D., C.M.G., Principal.

S. B. Sinclair, B.A., Ph.D., Head of the School for Teachers, and Professor of the History and Principles of Education.

Miss Annie B. Juniper, Head of the School of Household Science and Assistant Professor of Household Science.

F. C. Harrison, B.S.A., D.Sc., Professor of Bacteriology.

William Lochhead, B.A., M.Sc., Professor of Biology.

Carleton J. Lynde, Ph.D., Professor of Physics.

Leonard S. Klinck, M.S.A., Professor of Cereal Husbandry.

H. S. Arkell, M.A., B.S.A., Professor of Animal Husbandry.

Abner W. Kneeland, M.A., B.C.L., Professor of English in the School for Teachers.

John Brittain, D.Sc., Professor of Nature Study.

W. Saxby Blair, Assistant Professor of Horticulture.

J. F. Snell, Ph.D., Assistant Professor of Chemistry.

John Fixter, Farm Superintendent and Instructor in Farm Machinery.

FRED. C. ELFORD, Manager and Instructor in Poultry Department.

J. M. SWAINE, M.S.A., Lecturer in Entomology and Zoology.

J. VANDERLECK, Ch.E., Assistant in Bacteriology.

H. DASEN, Assistant in Bacteriology.

GEORGE E. EMBERLEY, Instructor in Manual Training.

MME. SOPHIE CORNU, Professor of French in the School for Teachers.

MISS LILIAN B. ROBINS, B.A., Instructor in Mathematics and in Classics in the School for Teachers.

MISS MARY I. PEEBLES, Head Mistress in Practice School.

H. F. ARMSTRONG, Associate Professor of Drawing in the School for Teachers.

————————Instructor in Horticulture.

H. S. HAMMOND, B.S.A., F.C.S., Assistant in Chemistry.

H. BARTON, B.S.A., Instructor in Animal Husbandry.

DOUGLAS WEIR, B.S.A., Assistant in Biology.

DOUGLAS MACFARLANE, Ph.D. (Goettingen), Lecturer in English and History.

FREDERICK W. BATES, B.A., Assistant in Physics.

WILLIAM H. SMITH, Instructor in Vocal Music.

MISS ABBIE DELURY, Instructor in Household Science.

MISS CATHERINE T. MCCAIG, Instructor in Household Science.

MISS EMMA H. BIGELOW, Instructor in Laundry and Household Practice.

MISS MARGARET KENNEDY, Instructor in Sewing and Dressmaking.

MISS JANET MACNAUGTON, Instructor in Home Dairying.

MISS MARJORIE TORRANCE, Instructor in Physical Culture and Hygiene.

In the Residences.

MRS. JENNIE MULDREW, House-mother and Superintendent of Women's Residence.

MISS MABEL MORTIMER, Housekeeper and Dietician.

MRS. J. F. O'HARA, Matron in Men's Residence.

————————,Trained Nurse and Instructor in Home Nursing.

DR. HELEN MACDONALD, Physician to the Women's Department.

JOHN J. WALKER, M.D., Physician to the Men's Department.

Other Officers.

T. FRED. WARD, Bursar.

MRS. FRANK J. JAMES, Assistant in the Library.

ENTRANCE REQUIREMENTS.

School of Agriculture.

All candidates for admission:

1. Must have entered upon their eighteenth year;

2. Must produce satisfactory evidence as to moral character and physical health; and

3. Must produce evidence of having worked for a season on a farm in Canada, affording a practical knowledge of ordinary farm operations.

All candidates for the One and Two-Year Courses will be required to read and write the English language acceptably, to be proficient in the use of elementary mathematics, and to be acquainted with history and geography, especially of Canada.

A student admitted in 1907, 1908 or 1909 may proceed with the work of the Third and Fourth years, towards a Degree, provided he has taken the Two Years Diploma Course, has obtained 60% of the marks in English and 50% in general proficiency, and has the permission of the Faculty.

A student who presents a matriculation certificate on entering the First Year may proceed with the work of the Third and Fourth years, provided he has taken the Two Years Diploma Course to the satisfaction of the Faculty.

A student who applies for admission to the courses leading to a Degree, beginning with the session 1910-11, or subsequently, will be required:—

(a) to pass, before entrance, an examination in English Composition and Dictation, English Grammar, History and

Arithmetic, as prescribed for admission to any of the Faculties of McGill University; and

(b) before being allowed to proceed with the work of the Third Year, to have obtained 60 per cent. of the marks in English and 50 per cent. in general proficiency in the examination of the work of the Two Years' Course, and the permission of the Faculty;

Or to have passed an examination in the following subjects, up to the requirements for entrance to the other Faculties of McGill University—(1) English Literature, (2) Latin, French or German, (3) Algebra, Part I, (4) Geometry, Part I, (5) any two of the following: Botany, Chemistry, Physics, Zoology; to have passed an examination in the work of the Two Years Course; and to have obtained the permission of the Faculty.

School for Teachers.

Teachers to be trained for the schools under the control of the Protestant Committee of the Council of Public Instruction for the Province of Quebec will be admitted under conditions prescribed by that body, particulars concerning which are given in detail in the announcement of Macdonald College.

Other teachers, and others who wish to become teachers elsewhere, will be admitted for courses under regulations of the Macdonald College Committee.

Such candidates for admission:—

1. Must be 18 years of age;

2. Must be recommended by the Department of Education or a School Inspector of the Province in which they reside;

3. Must produce satisfactory evidence as to moral character and physical health.

School of Household Science.

All candidates for admission,—

1. Must have entered upon their eighteenth year;
2. Must produce satisfactory evidence as to moral character and physical health.

All candidates for the One and Two-Year Courses will be required to read and write the English language acceptably, to be proficient in the use of elementary mathematics, and to be acquainted with history and geography, especially of Canada.

LIVING EXPENSES AND FEES

The charges for board and lodging are as follows:—

For each occupant of a double room with single beds, per week..... $3.50

No allowance is made on board for absence of less than two weeks for any cause other than personal illness.

The above charges must be paid strictly in advance, and may be for the whole term, or for four weeks at a time.

Caution Money—Every student must also, at the time of entrance, make a cash deposit of $5,00 with the Bursar of the College. to cover fines, breakages, etc.; and as soon as any student's deposit is exhausted he will be required forthwith to make an additional deposit of the same amount.

Payments at Entrance—

For First and Second Year Students in the School of Agriculture and in the School for Teachers:—

Four weeks board in advance.....	$14.00
Caution money deposit.....	5.00
Laboratory fee.....	5.00
Doctor's fee.....	3.00
	$27.00

For Third and Fourth Year Students in the School of Agriculture—

Four weeks board in advance.....	$14.00
Caution money deposit.....	5.00
Laboratory fee.....	15.00
Doctor's fee.....	3.00
	$37.00

For First and Second Year Students in Household Science—

Four weeks board in advance	$14.00
Caution money deposit	5.00
Laboratory fee	10.00
Tuition fee	25.00
Doctor's fee	3.00
	$57.00

For Students in the Three Months Course in Household Science—

Four weeks board in advance	$14.00
Caution money deposit	5.00
Tuition fee	15.00
Doctor's fee	2.00
	$36.00

The Bursar will be in his office at stated times to receive payments.

FEES.

In the School for Teachers tuition is free to residents of Canada.

In the School of Agriculture tuition is for the present free to residents of Canada. For others the fee for tuition is $50.00 for the session.

In the School of Household Science the fee for tuition for First and Second Year Students is $25.00 for the session. The fee for students in the Three Months Short Courses is $15.00 per term.

A laboratory fee of $5.00 is payable by all students of the First and Second Years in the School of Agriculture and the School for Teachers; $10.00 by First and Second Year students in the School of Household Science; and $15.00 by Third and Fourth Year Students in the School of Agriculture.

THE COLLEGE YEAR—(1909-1910.)

School of Agriculture.

First term begins.....	September 29th,	1909
and ends	December 22nd,	1909
Second term begins.....	January 5th,	1910
and ends (For First and Second Years)	April 28th,	1910
(For Third and Fourth Years).	May 27th,	1910

School for Teachers.

First term begins.....	September 2nd,	1909
and ends	December 22nd,	1909
Second term begins.....	January 5th,	1910
and ends	June 16th,	1910

School of Household Science.

First term begins.....	September 9th,	1909
and ends	December 22nd,	1909
Second term begins.....	January 5th,	1910
and ends	April 1st,	1910
Third term begins.....	April 4th,	1910
and ends	June 16th,	1910

THE BUILDINGS ON THE CAMPUS.

The buildings on the Campus are of fire-proof construction. The walls are of brick and cement; the beams and rafters are of steel, and the partition walls of the rooms are of terra cotta. The roofs, as well as the floors, are of reinforced concrete, and are covered with tiles. The red tiles of the roof harmonize well with the flash brick of the exterior walls. The arrangement of the buildings allows of spacious courts between them, in front, sides, and rear, so that every room has abundance of light.

Every building is provided with a complete system of ventilation, whereby fresh air (warmed in winter) is furnished to every room, including the bedrooms of the dormi-

tories. A duct from each room removes the inside air, and thus insures a continuous circulation of pure air from outside.

The buildings are heated with steam, lighted by electricity, and supplied with water from the College power house. A system of tunnels provides for the distribution of heat, light, power, water, and gas. The power house contains six horizontal tubular boilers of 150 h.p. each, with engines, electric generators, pumps, and a gas plant. The general water supply is taken from the Ottawa River; and drinking water is obtained from a rock-drilled well.

THE MAIN BUILDINGS.

The grouping of the buildings of the College makes this the centre, as around it stand the residences for men and for women, and the laboratories for the sciences. An annex leading off the main hall on the ground floor, contains the Reading Room and Library, which are admirably adapted for study; above these is the Assembly Hall, where every day the students will gather at the noon hour. The Reading Room has accommodation for 150 readers, and in a series of alcoves there are "working lists" of books covering the current class work in each department. The Library has stack-room accommodation for about 13,000 volumes, and the choice of books has been directed towards bringing together the best of modern literature upon the subjects of the curriculum of the College.

The Assembly Hall has seating capacity for about 650 persons, and the large pipe organ makes the room well adapted for organ recitals. It is used also for the lectures which are given at intervals during the year by men and women prominent in various aspects of social life and endeavour.

The class rooms and offices of the School for Teachers occupy the central portion of the second and third floors of this building. They are well equipped with desks and tables and are thoroughly lighted and ventilated. In addition to the

class rooms there are—a good sized lecture room, centrally located on the second floor, in which demonstrations can be given to advantage by means of charts, models and other material, stored in an adjoining preparation room; and a large Educational Museum on the third floor, in which will be placed illustrative examples, school room supplies and samples of scholars' work.

The class rooms and laboratories of the School of Household Science occupy the end portions of the second and third floors. There are two large kitchens, each with working places for 28 students, for practice work in cookery; a dining room where experience is obtained in serving simple meals and special menus, and in the decoration of the table; a large sewing room for practice in hand and machine sewing; dressmaking and millinery rooms; a laundry for practical work in the best methods of washing, cleaning, and ironing; house decoration room for the study of the principles and methods of the furnishing and decoration of the home.

The laboratories and workrooms for Nature Study and Manual Training are situated on the first floor and are well equipped for efficient work in those branches of study.

THE BIOLOGY-BACTERIOLOGY BUILDING.

This building lies to the northeast of the main building, and is connected with it by a covered corridor. It is 172 feet long, and from 72 to 86 feet wide, and two stories high. It has a high basement and a good attic, where good rooms will be available when required. As in the Chemistry-Physics building special attention has been given to heating and ventilation. Thermostats are installed in several of the rooms, and special flues have been constructed for the forced removal of impure gases. Steam, hot water, cold water, and gas are supplied to such laboratories as require them.

The Department of Biology occupies half of the building. On the first floor are the Physiological Laboratory, 48 feet by 28 feet and the Histological Laboratory, 42 feet by 28 feet. On the second floor are the Elementary Laboratory, 50 feet

by 28; the Elementary Entomological Laboratory, 33 feet by 26 feet; the Advanced Entomological Laboratory, 28 feet by 28 feet; the office for the lecturer; two Research rooms; a store room; a large Lecture Room; a museum, and rooms for photography.

In the basement is a room for the preparation of insecticides and fungicides in the investigation of plant diseases. A greenhouse and insectary attached to the building furnish facilities for the study of the activities of growing plants, Plant Physiology, and the life histories of insects.

The Department of Bacteriology occupies about one-half of the building. The rooms have high ceilings, and are well ventilated and lighted. The windows of the rooms in which microscopes are used are furnished with a lower sash of ground glass, in order to give even illumination for microscopic work. The floors of most rooms are of maple, but those in which much water is used are of coloured cement. All laboratories are supplied with high and low pressure steam, hot, cold, and distilled water, gas and vacuum. All the steam radiators in the laboratories may be regulated to any required temperature.

Among the principal rooms are the following: In the basement, a suite of photographic rooms, equipped with a large Zeiss photomicrographic outfit and arranged for electric light as illuminant; several dark rooms for students' use, furnished with the necessary water and sink accommodation; a mechanical apparatus room in which high power centifuges, shaking apparatus and other mechanical appliances, which can be geared to an electric motor, are installed. A series of cool rooms for fermentation work are also provided for in the basement.

On the first floor there are an office and private laboratory for the Professor of Bacteriology and a large elementary laboratory seating fifty students. Each student has five square feet of table-top, and three drawers and a cupboard for storing the materials and apparatus—gas and water are in front of each seat. The table-tops are covered with cork

carpet ebonized. A large preparation room, with a number of sinks, opens directly off this laboratory. An autopsy room, adjoining the animal house, is furnished with enamelled lava tables and the necessary sterilizing apparatus, and gives ample facilities for animal operation and autopsies.

The Dairy and Soil laboratories, each about 30 feet square, are well equipped for instruction and research along the lines mentioned. For example, a large autoclave in the soil room permits the sterilization of large amounts of soil, and the dairy room has a small churn and other dairy apparatus for investigation of dairy problems. A series of four small rooms, well insulated with hollow tile and cork, and thermostatically controlled, give temperatures ranging from freezing to blood heat.

On the second floor there is a laboratory for 20 advanced students. The room is well equipped; each student has a large amount of working space, with ample storage. The table-tops are of enamelled lava. Opening from this room is a kitchen for the preparation of media. This room is also available for four private research laboratories, each of which is fitted up for experimental work. A suite of three rooms for photographic use, including a studio with overhead lighting, a large room for museum purposes, and the lecture room in amphitheatre style, seating 180, are used in common with the Department of Biology.

THE CHEMISTRY-PHYSICS BUILDING.

This is a two-storey structure, 172 feet long, and from 72 to 86 feet wide, lying to the northwest of the main building, and connected with it by a covered corridor. The basement is well lighted and ventilated, and is sub-divided into large rooms which may be used for laboratories as required. Special care has been given to the construction of flues for the removal of noxious fumes, and the admission of pure air. The laboratories are well equipped with fume cup-

boards, and supplied with distilled water, cold water, hot water, steam, and gas.

The fume cupboards have lead floors and a system of ventilation distinct from the general system of the building. Acid-proof tables of enamelled lava are provided for burette work. The balance tables, also of enamelled lava, are attached to the walls of the building, to ensure steadiness.

A large amphitheatre lecture room on the second floor is used by the two Departments in common. This has seats for 175 students, and can readily be darkened for the purposes of optical experiments and lantern projections.

Adjoining the lecture room are rooms for the preparation of lecture experiments and the storage of lecture apparatus.

The Department of Chemistry occupies about half the building. In the basement are rooms for ether extractions in the determination of fat, and for Kjeldahl digestions and distillations in the determination of nitrogen in foods, fertilizers, etc., a store room for acids, a dark-room for work with the polariscope, such as the determination of sugar, and a suite of rooms for photography.

On the main floor are the Professor's office and private laboratory, supply-rooms for apparatus and chemicals, and laboratories for Elementary, Advanced, and Dairy Chemistry. The Elementary Laboratory is a spacious room of forty feet square, with desk accommodation for seventy-five and hood accommodation for forty students.

The Dairy Laboratory in which instruction will be given in the chemistry of milk, butter, and cheese, has table space sufficient for twenty-four workers. The Advanced Laboratory will accommodate about the same number of students.

On the second floor, in addition to the lecture room and preparation rooms, there are a smaller class-room, laboratories for Organic Chemistry and Food Chemistry, and the office of the Assistant Professor. The Organic Laboratory for practice in the preparation and analysis of carbon compounds, will accommodate a class of about twenty-four; and the Foods Laboratory, a 42 by 28 foot room, will allow

ample space for a somewhat greater number for practice in the examination of foods, for the determination of nutritive value and for the detection of preservatives and adulterants.

The Department of Physics occupies one-half of the building. In the basement are two storerooms and two large, well-lighted laboratories. One of the storerooms is used to hold a supply of the different types of soil for winter work in the classes; the second storeroom is for large pieces of apparatus, lumber, etc. One of the laboratories is to be used for practice work in concrete mixing, such as making concrete troughs, tile, building blocks, etc. The second laboratory is to be used for setting up power apparatus, such as a gasoline engine, steam engine, waterwheel, etc. On the first floor is the office of the professor and his private laboratory; also a laboratory 40 feet by 25 feet, to be fitted up with apparatus for advanced work in molecular physics, heat and light, in connection with the work in climatology and soil physics, and a laboratory, 48 feet by 28 feet, for work in soil physics—the equipment being such that 30 students may make the same experiment at the same time. There is also an apparatus room, 13 feet by 28 feet. On the second floor is a large Elementary Laboratory, 50 feet by 28 feet, used for the work in Physics in the School for Teachers and the School of Household Science. It is so equipped that each student may do 55 quantitative experiments in the year's work. There are 15 sets of apparatus for each experiment, so that 30 students may make the same experiment at the same time. Adjoining this is a storeroom for laboratory and demonstration apparatus.

A second laboratory, 40 feet by 28 feet, is used for the elementary work in Mechanics in the School of Agriculture. It is well equipped with simple farm appliances such as crowbars, forks, shovels, wheelbarrows, pulleys, a Jack screw, differential pulley, winch, hydraulic Jack, pump, etc. The plan of the course is to introduce the student to the Science of Physics, by using as a foundation the large fund of practical knowledge which he already possesses of the use of these

tools. This knowledge is extended and systematized, and the student learns that the use of every tool is governed by a simple law, thus they are the more readily led to realize that in nature there is law and order everywhere. In addition, on the second floor, there is a large workshop, equipped with a lathe, carpenter's bench and complete set of tools, also a research room, office of the Assistant in Physics, and large lecture room, seating 175 students.

THE AGRICULTURE-HORTICULTURE BUILDING.

This building occupies a prominent position to the northeast of the Biology and Main buildings. It looks towards the west, and has a frontage of 194 feet. The north wing is devoted to Home Dairying, the south wing to Horticulture, and the central portion to Agriculture, Live Stock, Cereal Husbandry, and Farm Machinery.

The offices of the Department of Animal Husbandry are immediately to the right of the main entrance and the lecture rooms occupy the east wing of the first floor. In this wing there is a veterinary office, slaughter room, cold storage for carcasses, and a large octagonal judging pavilion, 92 feet by 44 feet, provided with raised seats for the accommodation of students and a central ring, into which animals may be brought for comparison and judging. The walls of the slaughter room are of white glazed brick, and the room is provided with hoisting wheel, windlass and tracking which extends into both the cold storage and lecture room. The department supplies the College Dining Room with what beef, mutton and pork is required, and is thus enabled to give the students demonstrations in the slaughtering and dressing of animals, and at times may require them to assist in the work. In the judging pavilion, practical instruction is given on the characteristics of the different breeds of horses, cattle, sheep and swine, on their feeding and management, on the principles of breeding, on judging, and on the keeping of herd books.

The Department of Cereal Husbandry occupies the east end of the second floor. In addition to the plant and seed store

rooms, there is a large, well-lighted seed selection room, a class room, an office and a combined exhibition and seed judging laboratory. The seed laboratory is 92 ft. by 44 ft. and is admirably equipped for a detailed study of all classes of field crops. The large, high windows admit an abundance of light while the illustrative material in the exhibition cases constitutes a readily available reference for class and laboratory purposes.

The Department of Horticulture occupies the south wing of the building to the right of the main entrance. In the high basement are a potting and general work room, 26 feet by 26 feet; a laboratory room, 28 feet by 26 feet; a fruit packing room, 46 feet by 22 feet; and a store room. On the first floor are the offices, a record room, a horticultural museum room, 38 feet by 26 feet; and a pomology room, 30 feet by 26 feet. The class rooms are on the second floor. There is also a refrigerator for fruit products on the first floor.

This Department is well equipped with class-rooms, work-rooms, and greenhouses for lecture and laboratory instruction in the study of fruits, flowers, and vegetables, in the propagation of plants by grafting, budding, and fertilization, in seed testing, etc. Under its control are the vegetable gardens, the small-fruit plantations, and the orchards, where students can become familiar with the best methods of growing fruits and vegetables. Opportunities will be given for the study of the best methods of spraying, of packing, and of handling fruits and vegetables for the market by means of practical demonstration.

The Department of Home Dairying occupies the north-west wing of the building to the left of the main entrance. It contains an office, a milk-testing room, 30 feet by 23 feet; a cheese room, 40 feet by 30 feet; a butter room, 40 feet by 30 feet; and a cheese-ripening room, 18 feet by 20 feet. The walls of these rooms are lined with glazed bricks, and the floors are of cement. There are also two refrigerator rooms for dairy products on the same floor, and cellars for

cheese-ripening in the basement. The class-rooms are on the second floor.

This Department is equipped with all the most modern appliances for teaching butter and cheese-making on the farm, such as pasteurizers, cream separators, barrel churns, butter workers, etc. Instruction will be given also in the use of the lactometer and Babcock tester, and in the handling of pure milk and cream for the market.

The Department of Farm Machinery occupies the ground floor at the east end. Its purpose is to give instruction in the management and care of the farm machinery. Practical exercises are given in taking apart and putting together the parts of reapers, mowers, manure spreaders, plows, etc., and in repairing and replacing broken or missing parts. In this building there are a blacksmith's shop, with forges, anvils, etc., and a carpenter's shop, with all necessary tools and appliances.

THE POULTRY BUILDING.

The Poultry building lies to the north of the Agriculture-Horticulture building. The main portion, 70 feet by 40 feet, is two-storied, and has a roomy basement. The western annex furnishes the brooder house, and the eastern annex, a series of pens for the chief breeds of fowl.

This branch is thoroughly equipped and organized for giving practical instruction in the management of poultry. The main building contains a large lecture room, a class-room, incubator rooms, a feeding room, a judging room, and other work-rooms, besides offices, wash-rooms, and lavatories.

In the poultry yards close by are a large number of colony houses, each containing from 25 to 50 birds, to serve as illustrations of the profitable management of the main commercial breeds.

THE WOMEN'S RESIDENCE.

This building has bedroom accommodation for over 200 women. It contains also reception rooms, a music room,

apartments for the House-Mother and the Dietician, the large College dining room, 100 feet by 60 feet; a gymnasium, 100 feet by 60 feet; a swimming pool, 60 feet by 27 feet; bath rooms and lavatories. It is connected with the main building by a covered corridor. At the north end are well-appointed kitchens, bakery, refrigerator rooms, serving-pantries, and servants' quarters.

THE MEN'S RESIDENCE.

This corresponds in architecture and in plan of rooms to the Women's residence, and is on the opposite side of the Campus. It contains accommodation for over 150 men, also reception rooms, bath rooms, and lavatories, a gymnasium and a swimming pool.

THE FARM DIVISIONS.

THE MAIN FARM.

The farm buildings consist of a farm house, a number of cottages, a large storage barn for grain and hay, a horse barn, cattle stables, judging arena and piggery. All the buildings in which the animals are housed are of fireproof construction, have been erected upon a generous scale, and are convenient and well equipped. The horse barn has accommodation for over 20 horses, and has waggon shed and hay loft attached. The cattle stables include a dairy and cold storage, a calf barn with boxes for 60 calves, a dairy stable with stalls for 100 cows, and a bull stable and loose box barn, with accommodation for 120 young cattle, beef cattle and bulls. The judging arena attached is octagonal in form, 60 feet in diameter, and has accommodation for 250 students. The corridor extending from it provides a fine runway for horses and facilitates the study of action.

The College owns rather a large herd of Ayrshire cattle, which is reputed to be one of the best in the country. Smaller herds of Dairy Shorthorns and of French Canadians have been gathered together, the former having been imported from England during the summer of 1907. The

Dairy herd supplies the College with milk and the calves from deep-milking cows are raised and held for sale to the Agricultural Societies in Quebec. The herd of swine includes representatives of the improved large Yorkshire, Berkshire and Tamworth breeds. The herd includes not only imported stock but also sows purchased from some of the leading Canadian breeders.

The Live Stock and Grain Farm, comprising about 387 acres, is in good state of cultivation, well drained, and provided with well-built roads.

CEREAL HUSBANDRY DEPARTMENT.

The work of this department consists in the improvement by selection and breeding of all classes of field crops. Approximately 700 plots are devoted to the growing of cereals, clovers and grasses. Five rotation farms have been laid out for a study of rotation cultivation and good seed. Immediately adjoining the school gardens, four acres of land have been set aside for illustration work with cereals. Here, experiments are conducted to determine the best dates and rates for seeding; the best combinations and proportions of grains for the production of mixed grain for feed; the influence of size of seed on the yield and quality of the succeeding crops, etc. Two entire ranges in this field are devoted to plant breeding, in which upwards of 300,000 individual plants will be tested this season. The main field work of the department is on both sides of the railway tracks, north of the Poultry buildings. Here, those interested will have an opportunity to study the various grains, grasses, clovers, alfalfa, roots, corn, etc. The plots are all plainly labelled to enable visitors to understand the nature of the experiments.

THE HORTICULTURAL DEPARTMENT.

The laboratories and greenhouses give the student an opportunity of gaining horticultural knowledge in a practical way

during the winter months. One greenhouse is devoted entirely to giving the students actual work in the laying out, planting, care, and management of trees, small fruits, vegetables, etc. The other greenhouses are utilized for the development of greenhouse crops, both flowers and vegetables, which are grown along commercial lines; at the same time experiments to determine, if possible, how best to develop these crops for the greatest profit are being conducted.

The Horticultural Farm covers an area of about 70 acres. On this, 30 acres are orchard, 20 of which are devoted to hardy varieties of apples; the aim being to determine the best way to grow them to develop not only productive but long lived trees. To determine this a series of cultural experiments are begun this season. Each row running north and south represents a variety, and the orchard is divided into plots taking three rows east and west for a cultural or fertilizing test as the case may be.

The variety apple orchard covers about five acres, four trees of each variety being planted. The pear and plum orchard occupies about three acres. The plums in this orchard are principally those of American origin. Plums of European origin, and also cherries, are planted as fillers in a part of the commercial orchard.

On this farm is a commodious brick barn for the storage of garden and orchard produce, the grain grown on the experimental plots, the implements of cultivation, the machinery for threshing and cleaning seed, and for the stabling of horses.

Macadam and other roads have been laid out, and built to give ready access to the various sections of the farm.

THE SCHOOL OF AGRICULTURE

Courses are offered in the School of Agriculture as follows:

A. Short courses of two weeks each.

B. A Two-Year Course leading to a diploma.

C. A Four-Year Course leading to a Bachelor's Degree.

A. The Short Courses are made as practical as possible and are provided in the subjects of:

1. Live Stock.
2. Cereal Husbandry.
3. Horticulture.
4. Poultry.

B. The Two-Year Course embraces studies in:

1. Animal Husbandry.
2. Field and Cereal Husbandry.
3. Horticulture.
4. Poultry Husbandry.
5. Home Dairying.

C. The Four-Year Course. This is a continuation of the Two-Year Course for the purpose of affording opportunity for more advanced knowledge of rural economy, and more thorough and exact acquaintance with the Natural Sciences and their applications to the conditions, processes, and organizations of rural life.

THE TWO-YEAR COURSE.

This course is eminently practical, and is specially arranged to meet the needs of farmers' sons who purpose returning to their farms. During the first year the practical subjects, such as Animal Husbandry, Cereal Husbandry, Horticulture, Poultry, etc., are emphasized. It is believed that the valuable but rather indefinite information that the student already possesses regarding farm life and processes, can be used to good advantage from the outset in the building up of a solid superstructure of agricultural knowledge, when enlarged and strengthened in all parts by the introduction of scientific principles gained in the biology, bacteriology, physics, and chemistry laboratories.

In the Second Year, more attention is given to the Sciences bearing on Agriculture, and to the acquisition of the facts upon which the great principles of agriculture are based. Considerable time, however, is devoted to the so-called practical agricultural subjects, in continuation of the work of the First Year.

Courses (as given in outline in the announcement of Macdonald College) in the following subjects constitute the work of the First Year:

English—Course 1.
History—Course 1.
Mathematics.
Drawing.
Biology—Courses 1 and 2.
Nature Study—Courses 1 and 2.
Chemistry—Course 1.
Physics—Courses 1 and 2.
Animal Husbandry—Courses 1, 2, 3, and 8.
Cereal Husbandry—Course 1.
Horticulture—Courses 1, 2, and 3.
Poultry—Course 1.
Farm Machinery.
Home Dairying—Course 1.
Manual Training.

Courses in the following subjects constitute the work of the Second Year:

English—Course 2.
History—Course 2.
Manual Training.
Botany—Courses 3, 6, and 7.
Entomology—Course 4.
Geology—Course 1.
Bacteriology—Course 1.
Physics—Courses 3 and 4.
Chemistry—Courses 2 and 3.
Animal Husbandry—Courses 4, 5, 6, 7, and 8.
Cereal Husbandry—Courses 2, 3, and 4.
Dairy Husbandry—Course 2.
Horticulture—Courses 4, 5, and 6.
Poultry—Course 2.
Mathematics.
History—Course 2.

The subjects to be taken up in the Third Year (given in outline in the announcement of Macdonald College) are as follows:

English—Course 3.
French.
Rural Economics—Course 1.
Animal Husbandry—Course 9.
Cereal Husbandry—Course 5.
Horticulture—Course 7.
Biology—Courses 7, 8, 9, and 10.
Bacteriology—Course 2.
Chemistry—Courses 4, 5, and 6.
Physics—Courses 5, 6, and 7.
Mathematics.

FOURTH YEAR COURSE.

Students may choose one of the four following Courses:

1. Animal Husbandry.
2. Cereal Husbandry.
3. Horticulture.
4. Selective.

Animal Husbandry Course.

a. Animal Husbandry—Courses 10, 11, and 12.
b. Cereal Husbandry—Course 6.
c. Poultry—Course 2.
d. Horticulture—Course 10.
e. Chemistry—Courses 7 and 8.
f. Bacteriology—Courses 3 and 5.
g. Biology—Courses 6, 11 and 13.
h. Physics—Courses 8 and 9.
i. English—Course 4.
j. French.
k. Mathematics.

Cereal Husbandry Course.

a. Cereal Husbandry—Courses 6, 7, 8, 9, and 10.
b. Biology—Courses 4, 6, and 11.
c. Bacteriology—Course 3.
d. Chemistry—Courses 7, 8, and 9.
e. Physics—Courses 8, 9, and 10.
f. English—Course 4.
g. French.
h. Mathematics.

Horticulture Course.

a. Horticulture—Courses 8, 9, 10, 11, 12, and 13.
b. Biology—Courses 4, 6, 11, and 12.
c. Bacteriology—Course 3.
d. Chemistry—Courses 7 and 9.
e. Physics—Courses 8 and 9
f. English—Course 4.
g. French.
h. Mathematics.

Selective Course.

Students may make a selection from the courses offered in the three preceding options, after full consultation with, and consent of, the Faculty of Agriculture.

NOTE REGARDING THIRD AND FOURTH YEAR COURSES.

1. A record of each student's practical work throughout the course will be kept.

2. A record of each student's reading, as tested from time to time, will also be kept.

3. Practical, as well as written examinations will be held whenever such examinations are necessary.

4. Each student is required to prepare a Thesis on some branch or department of the work in his special course, under the direction of the professor in whose department the work is done. The subject is to be chosen not later than the end of the Third Year, and submitted for the approval of the Staff on or before May 1st. The Thesis must be based chiefly on

original investigation, and will be followed by an oral examination before a committee of the Staff appointed for the purpose. It must be typewritten on letter-sized paper, and handed to the committee of adjudication on or before the first of April of the Fourth Year.

SPECIAL COURSES.

Any person may come to the College at any time for special work, with more or less instruction from the *man* in charge.

Such students must board out, and pay a fee of $5.00 per subject, together with actual cost of laboratory material.

EXAMINATIONS.

There are two examinations in each year, viz., at Christmas and at the end of the session. Successful students are arranged in three classes at the sessional examination. Those who obtain 75 per cent. and over are placed in the first class; those who obtain 60, and less than 75 per cent., in the second class; and those who obtain 40, and less than 60 per cent., in the third class.

Students conditioned in one or two subjects will be required to write supplemental examinations in these subjects.

Students conditioned in more than two subjects will be considered as having failed to pass the examinations.

Candidates for supplemental examinations must notify the Principal, in writing, at least one week before the dates fixed in the Calendar, and pay in advance the sum of $2.00 for each paper. Supplemental examinations taken at any other time must be arranged for with the Principal, and for such examinations candidates must pay, in advance, $3.00 per paper.

THE B. S. A. DEGREE.

Students who shall have completed the regular course of study in Agriculture, as prescribed in the Announcement; shall have passed the prescribed examinations for graduation; and shall have performed such exercises as may be prescribed to that end—the whole to the satisfaction of the Faculty of Agri-

culture,—shall be entitled to the degree of Bachelor of Science in Agriculture, and the designation of the Degree, when abbreviated, shall be the letters B.S.A.

For entrance requirements see page 313.

THE SCHOOL FOR TEACHERS.

By an agreement with the Government of the Province of Quebec, confirmed by an Act of the Legislature, it was provided that a school for the training of teachers for the schools under the control of the Protestant Committee of the Council of Public Instruction should be established and carried on at Ste. Anne de Bellevue in lieu of the McGill Normal School in Montreal, under the regulations of the Protestant Committee and in the manner hereinafter mentioned.

The Trustees of Macdonald College undertook in the said agreement:—

"(1) To provide and maintain at their own expense on the "said property at Ste. Anne de Bellevue, class-rooms, labor- "atories, library, assembly hall, offices, and other rooms, fully "equipped and in every way suitable for the purposes of a "school for the training of teachers according to the present "requirements of the Province;

"(2) To carry on therein at their own expense, a school "for the training of teachers for the schools under the con- "trol of the Protestant Committee, the teaching and training "to be given by said school to be in all respects equal to the "present standard and requirements of the Province, and to "be carried on in accordance with the reguations made from "time to time by the Protestant Committee, such training to "include efficient courses in the study of nature, in household "science, and in manual training;

"(3) To provide and maintain, without expense to the "Province of Quebec, upon said property, a suitable residence "for the female pupils of said school and a suitable residence "for the male pupils thereof;

"(4) To give free tuition to such pupils as may give to "their satisfaction, an undertaking to teach in the Province of

"Quebec, and to supply board and lodging to the resident "pupils as cheaply as can be done without loss."

"The teaching and training in the said school shall, subject "to the regulations at all times of the Protestant Committee, "be under the direction of a Committee, to be called the "Teachers' Training Committee, which shall consist of the "Principal of McGill University for the time being, who shall "be *ex officio* Chairman; of two persons appointed by the "Protestant Committee; of the English Secretary of the "Council of Public Instruction; of the Professor of Education "in McGill University for the time being; of the Principal, for "the time being, of Macdonald College; of the Head, for "the time being, of the Teachers' Training Department of "Macdonald College; and of one person appointed by the "Corporation of McGill University; the persons appointed, "respectively, by the Corporation of McGill University and by "the Protestant Committee to hold office for a term of three "years and to be eligible for re-election."

This institution is intended to give a thorough training to teachers, by instruction and training in the School for Teachers itself, and by practice in the Practice Schools; and the arrangements are of such a character as to afford the greatest possible facilities to students from all parts of the Province. The Protestant Central Board of Examiners for the Province of Quebec grants diplomas only to teachers-in-training of this School and to graduates of Canadian or other British universities who have received the necessary training.

ANNOUNCEMENT FOR THE SESSION 1909-1910.

The third session of this School will begin on the second of September, 1909, and will close on the sixteenth of June, 1910. The students are graded as follows:

1.—*Elementary Class.*—Studying for the Elementary Diploma.

2.—*Kindergarten Class.*—Studying for the Kindergarten Diploma.

3.—*Model School Class.*—Studying for the Model School Diploma.

Detailed information respecting the course for each grade of Diploma will be found in the Announcement of Macdonald College, and may be obtained on application to the Dean of the School for Teachers, Macdonald College Post Office, Que.

THE SCHOOL OF HOUSEHOLD SCIENCE.

EQUIPMENT.

The School of Household Science occupies part of the Main Building. The laboratories and class-rooms are situated on the second and third floors.

The equipment consists of two large cooking laboratories or class kitchens, with individual equipment for 56 students; these rooms are connected by a well lighted and roomy pantry, well provided with sinks, shelving, cupboards, and furnished with a large refrigerator. Opening out of one of these laboratories is a small dining room, for lessons in table setting and waitress work.

The class laundry has individual equipment for 24 students, a large steam dryer, mangle, and the necessary complement of ordinary and electric irons, etc.

The large and well lighted sewing room is equipped for thirty students.

The dressmaking room is furnished with special "cutting-out" tables, sewing machines, forms, etc., and cabinets for the exhibition of models and students' work. Two small rooms adjoining the class-room are equipped and used as "fitting" rooms.

Two rooms are assigned for millinery, and one for house decoration. In the latter numerous samples of wall papers, fabrics, etc., are kept for the work of instruction.

A small apartment of two bedrooms, bathroom, dining room, living room, kitchen and pantries affords facilities for practical work in housekeeping.

Offices for the instructors, pantries, storerooms, locker and cloakrooms are also provided.

The classes in Nature Study, Bacteriology, Biology, Chemistry, Dairying, Horticulture, Manual Training, Poultry and Physics, are held in the College Departments devoted to these subjects.

An alcove in the Library is assigned to Household Science, and is furnished with the principal papers and magazines bearing on this subject. The Library contains a good working list of books on the various subjects taught in the School.

GENERAL REGULATIONS.

The entrance requirements for the School of Household Science are given on page 354, and candidates for entrance must fill out the blank form of application and return it to the College. Each application will be considered, and the sender informed with regard to its acceptance.

REGISTRATION.

Students are required to present themselves for registration on the opening day of the term. Registration at a later date is permitted only to those who obtain the consent of the Dean of the School, good cause for the delay being shown; and students may not change the registered programme of their studies without the consent of the Dean.

EXAMINATIONS.

Certificates are awarded to students who successfully complete the course of studies for the one-year course, and diplomas to students who complete the two-year course.

Students are required to make a minimum mark of 40 per cent. in each subject, and 50 per cent. of the total.

Examinations for these certificates and diplomas are held at the close of each year.

Students conditioned in one or two subjects will be required to write supplemental examinations in these subjects.

Students conditioned in more than two subjects will be considered as having failed to pass the examination.

CONDITIONS.

A student whose progress or conduct is unsatisfactory may be required by the Principal to withdraw from the course.

Absence from classes will be noted regularly, and no student will be excused from work, except by order of the doctor on account of illness.

Students are required to study in their rooms between the hours of 8 and 10 p.m.

OBJECT OF THE SCHOOL.

The object of the School of Household Science is to fit girls for the duties of the home-maker. The home-maker from the nature of her work is thrown very largely on her own resources, and should be capable of dealing intelligently with difficulties as they arise. The courses are therefore planned to give the student a good foundation in the different branches of ordinary household work supplemented by those scientific studies which have a bearing on the subjects of cookery, laundry, hygiene, etc. Above all, it is desired to awaken a girl's interest in the wider questions of sound bodies, wholesome dwellings and comfortable homes.

Courses are offered in the School of Household Science as follows:

A. A One-Year Home-maker's Course, leading to a certificate.

B. A Two-Year Home-maker's Course, leading to a diploma. (This diploma does not qualify for teaching).

C. A course in simple cookery and needlework lessons is arranged for the School for Teachers. This course is given with a view to helping teachers to create an interest in Household Science amongst their pupils.

D. A Short Course of three months duration. This course provides training in practical work in all branches connected with the home.

SHORT COURSES.

The Short Courses last about three months each, are made as practical as possible, and include the study of:—

1. Foods.
2. Plain Cooking.
3. Sewing.
4. Laundry.
5. Home Nursing, Sanitation and Hygiene.
6. Home Art.
7. Care of the House.

THE ONE-YEAR COURSE.

The One-Year Home-maker Course embraces practical and theoretical work in:—

1. Foods.
2. Cookery.
3. Household Economics.
4. Materials for Clothing.
5. Dressmaking and Millinery.
6. Laundry.
7. Fuels, Ventilation and House Sanitation.
8. Home Nursing and Hygiene.
9. Home Art.

Simultaneous studies are carried on in the Physics, Chemistry, Biology and Bacteriology laboratories to show the direct bearing of the sciences on the practical side of housekeeping.

THE TWO-YEAR COURSE.

The Two-Year Course is an extension of the One-Year Course comprising a more intensive study of the subjects therein embraced, and also more advanced laboratory work in the subjects of Chemistry, Physics, Biology and Bacteriology. English, Mathematics and History are also obligatory subjects in this course, and the student is allowed to choose two of the following:—Home Dairying, Poultry,

Horticulture, Seeds and Plant Improvement, and Wood Carving.

GENERAL INFORMATION.

POST-OFFICE.

There is a college post office in the Main building. All students should have their mail addressed in care of Macdonald College Post Office, Que.

RAILWAYS.

Ste. Anne de Bellevue is on the main line of the Grand Trunk Railway and of the Canadian Pacific Railway. Students on arrival at either of these stations, should report at once at the College office in the main building. This is but a short walk from the railways. Arrangements will be made at this office for the transfer of baggage. Baggage checks should be surrendered only at the College office.

On the days preceding the opening days of the fall term, as well as on that day, a representative from the College will be at the stations to give information.

COLLEGE ANNOUNCEMENT.

Further details as to the courses, etc., will be found in the Announcement of Macdonald College, which will be sent on application to the Registrar, Macdonald College Post Office, Que.

THE McGILL UNIVERSITY COLLEGE OF BRITISH COLUMBIA.

OFFICERS OF INSTRUCTION.

(At Vancouver.)

G. E. Robinson, B.A. (Dal.). Acting Principal and Dean, Professor of Mathematics.
J. K. Henry, B.A. (Dal.), Professor of English.
L. F. Robertson, M.A. (McGill), Professor of Latin.
A. E. Boak, M.A. (Queen's), Lecturer in Greek.
H. Chodat, M.A. (McGill), Professor of Modern Languages.
H. K. Dutcher, M.Sc. (McGill), Professor of Civil Engineering.
J. G. Davidson, B.A. (Toronto), Ph.D. (California), Professor of Physics.
D. W. Munn, B.Sc. (McGill), M.A. (McGill), Professor of Mechanical Engineering and Lecturer in Mathematics.
G. R. Kendall, B.Sc. (McGill), Lecturer in Biology and Chemistry.
L. F. Robertson, M.A., Registrar.

(At Victoria.)

S. J. Willis, B.A. (McGill), Dean and Professor of Classics.
E. H. Russell, B.A. (Queens), Professor of Mathematics.
Jeanette H. Cann, B.L. (Dal.), Lecturer in English.
Alice E. O. Henry, M.A. (McGill), Lecturer in Modern Languages.
Percy Elliott, M.Sc. (McGill), Lecturer in Physics.

HISTORICAL SKETCH.

Under an act passed by the Legislature of British Columbia in 1896 providing for the incorporation of High Schools as Colleges affiliated to recognized Universities, Vancouver High School became Vancouver College, and was admitted to affiliation for the First Year in Arts by the Corporation of McGill University. Work was begun under this new relationship in 1899, and by 1902 such progress had been made that an

extension of affiliation was granted to cover the first two years in Arts.

The need of University connection more intimate still than that of affiliation and also an extension of the scope of work came to be felt and urged, and, in 1906, as the result of much careful inquiry and deliberation local legislation was passed, (1) enacting that "The Governors, Principal, and Fellows of McGill University may exercise and enjoy in the Province of British Columbia all the powers, rights, privileges and functions conferred upon them by the Charter granted to them by His late Majesty King George IV, in the second year of his reign and amended by Her late Majesty, Queen Victoria in the sixteenth year of her reign," and (2) authorizing the incorporation of a body politic under the name of "The Royal Institution for the Advancement of Learning in British Columbia," and empowering this body "to establish, at such place in British Columbia as McGill University may designate, a College for the higher education of men and women, such college, in respect of courses of study and examinations, to be deemed a College of McGill University, and the instruction given to its students to be of the same standard as that given in like subjects at McGill University at Montreal." In pursuance of the objects of its foundation, therefore, the Royal Institution in 1906 established at Vancouver the McGill University College of British Columbia, by agreement with the Board of School Trustees, taking over the Arts work previously done by Vancouver College, with extension of the scope and options allowed, and adding the first two years of the course in the Faculty of Applied Science.

In 1908 the work of the College was extended to include the third year in Arts and it is hoped that in 1910-1911 the course in Arts will be completed.

In 1908 Victoria College, which for some years previously had been in affiliation with McGill University, was taken over by the Royal Institution as a part of the McGill University College of British Columbia. The instruction offered at Victoria covers the first two years in Arts.

CONSTITUTION OF THE UNIVERSITY.

Under the Act of the Legislature of the Province of British Columbia, above referred to, the Royal Institution for the Advancement of Learning of British Columbia is constituted a body corporate with all the usual rights and privileges of corporate bodies. The members of the Royal Institution are the Governors of the College and, as such, control the finances, make statutes and by-laws, appoint professors and perform all other administrative duties. The President of the Royal Institution is, *ex officio*, Chancellor of the College. The Principal is the academic head and chief administrative officer. He is appointed by the Board of Governors, of which body he is also a member, *ex officio*. The College is undenominational in character.

COURSES OF STUDY.

The College is at present offering instruction in the first three years of the Arts course of McGill University, and in the First and Second Years of the Course in Applied Science. The standard of work is that of McGill University, all the examinations being conducted by the examining Board of that Institution. It is expected at a very early date to offer instruction in the full course leading to the B.A. degree. Until such can be done candidates passing the examinations at the end of the Third Year are admitted to the Fourth Year in McGill University without further examination. Those who complete the two years' course in the Faculty of Applied Science are also admitted to the Third Year of that Faculty in McGill University.

THE SESSION.

The University Year or Session is divided into two terms, the first extending to the Christmas vacation, and the second from the expiry of the Christmas vacation to the end of the Sessional examinations in April. The Session of 1909-10 will begin, on Friday, October 1st, 1909.

Full information regarding matriculation requirements, courses of study and all other matters in connection with the College may be obtained from the Registrar.

GRADUATES.

SESSION 1908-1909.

PASSED FOR THE DEGREE OF BACHELOR OF ARTS

MEN

(In alphabetical order.)

Archibald, Kenneth
Ayer, Kenneth Roger
Bole, Thomas Harold
Bradley, William Lowther
Cameron, Donald Roy
Carey, William Vincent
Cheesbrough, Hilton Snider
Corbett, Edward Annand
Daw, Herbert Bethune
Dennison, Lawrence George
Drummond, Guy Melfort
Fisher, Roswell Eric
Fleet, Charles Andrew Robertson
Gordon, Walter Hetherington
Hale, Charles Albert
Harvey, Charles Henry
Hatcher, Albert George
Hindley, Wilbur Wright
Holden, Herbert Laurence Lamelliere
LeMesurier, Charles Stuart
McGougan, Alexander Graham
MacKenzie, James Alexander
McNeill, John Thomas
Meldrum, William Buell
Moodie, Robert T.
Packard, Mortimer Leicester
Paterson, Edward Russell
Pedley, Hugh Stowell
Plimsoll, Arthur Reginald Whitney
Richardson, John Alexander
Ross, Gordon
Surprenant, Thomas Stanton Haynes
Townsend, Charles Louis
Tremblay, Joseph Adelard

Waterston, Douglas
Wilson, Thomas Edgar
Wood, Harold Whitney

WOMEN.

(*In alphabetical order.*)

Brown, Theodora Wallace
Elliott, Edith E. E.
Estabrooks, Florence Cecelia
Green, Pearl Alberta
McDonald, Jessie
Massé, Alice Epeneter
Mitchell, Ada Lanceley
Norris, Ruby Aileen
Slattery, Annie
Vipond, Florence May
Willis, Frances Dorothy
Wilson, Florence Mary
Wisdom, Bessie Bell

PASSED FOR THE DEGREE OF BACHELOR OF SCIENCE

(In Arts.)

(*In alphabetical order.*)

Gray, Annie Robena
Schafheitlin, Gertrud

PASSED FOR THE DEGREE OF BACHELOR OF SCIENCE

(Applied Science.)

(*In alphabetical order.*)

Explanation of letters following the names:—

(Ar.)	Graduate	in	the Department	of Architectural Engineering
(Ch.)	"	"	"	Chemistry
(Ci.)	"	"	"	Civil Engineering
(El.)	"	"	"	Electrical Engineering
(Me.)	"	"	"	Mechanical Engineering
(Met.)	"	"	"	Metallurgy
(Mi.)	"	"	"	Mining Engineering
(Ry.)	"	"	"	Railways

Allen, Leslie Wilbur (El.)
Babson, George Low (Mi.)
Bailie, Archie Fraser (Ch.)
Baylis, Harold Adams (Ci.)
Bradshaw, Walter Everett (Ci.)
Briegel, Walter Oscar (El.)

Briggs, Arthur Francis Mayou (El.)
Bronson, Frederic E. (Ci.)
Brown, Lindsay Osborne (Ci.)
Brunton, Frederic Kemble (Met.)
Burbidge, George Harrison (Ci.)
Byrne, John Herbert (Ar.)
Cantley, Charles Lang (Mi.)
Cate, Carroll Lee (El.)
Cheesbrough, Arthur Gordon (Ch.)
Conway, Edmund John (Met.)
Coulin, Louis Auguste (Ry.)
Davies, Harold Cameron, B.Sc. (El.)
Dawson, Frederick James (Ci.)
DeLancey, James Arnold (Ci.)
Dennis, William Melbern (Ci.)
Descarries, Joseph Albert, B.A., Laval (Ch.)
Dickieson, Arthur Logan (El.)
Dickson, Garnet Horace (Ci.)
Drysdale, Charles Wales (Mi.)
Dwight, Herbert Bristol (El.)
Eakins, James Macdonald (Mi.)
Edwards, Godfrey Basil (El.)
Ford, Walter Stimson (Me.)
Fox, Charles Harry (Ci.)
Fraser, Archibald Norman (El.)
Galbraith, William John (Mi.)
Gall, Douglas Meikle (El.)
Goode, John Dudley (Me.)
Grove, Humphrey Shakespear (Me.)
Hague, Owen Carsley Frederic (El.)
Heywood, Edward Percival (Ci.)
Hilborn, Percy Richard (Mi.)
Johnston, Harold Stanley (Ci.)
Kennedy, William Alan (Mi.)
Ker, Frederick Innes (Ry.)
Layton, Shirley Thompson (Ci.)
Letourneau, Marius (Ch.)
Lindsay, Alexander Mollison (El.)
Lundy, Thomas Holmes Day (El.)
McDougall, James Cecil (Ar.)
McKinnon, Kenneth Royal (Me.)
McKnight, William Falconer (El.)
McLean, Douglas Lauchlin (Ci.)
Montague, Thomas Mortimer (Ci.)
Mulock, Redford Henry (El.)
Murphy, A. A., B.Sc. (Queen's) (El.)
Nairn, John Spencer (Mi.)
O'Neill, John Johnson (Mi.)
Powell, William Hall (Ci.)
Renaud, Bruce Gordon (Me.)
Richardson, Charles Edward (Me.)
Rider, Ezra Byron (Mi.)
Robb, Charles Alexander (Me.)

Ross, Charles Cathmere (Ci.)
Russell, Benjamin (Ci.)
Sailman, Robert Thomas Heathfield (Ci.)
Saunders, Charles William McIlroy (Met.)
Smith, George Washington (Ci.)
Smith, Stanley Morse (El.)
Soper, Arthur John (El.)
Spencer, Walter Hutchins, B.Sc. (Me.)
Stansfield, Maurice (Me.)
Stavert, William David (Ci.)
Stewart, Leighton (Mi.)
Sutherland, Luther Holton Dunbar (Mi.)
Trotter, Clifford Thackwell (El.)
Wilson, Alexander (El.)
Winslow, Rainsford-Hannay (Mi.)
Wisdom, Stuart (Mi.)
Yuill, Harry Hogg (Mi.)

PASSED FOR THE DEGREE OF BACHELOR OF ARCHITECTURE

(*In alphabetical order.*)

Dowswell, Harry Royden
Fetherstonhaugh, Harold Lea
Irwin, John Wilson

PASSED FOR THE DEGREE OF BACHELOR OF CIVIL LAW.

(*Names in alphabetical order.*)

Barclay, Gregor, B.A.
Dutaud Gustave, B.A.
Gibb, Robertson Walton, B.A.
Hackett, John Thomas, B.L. (Laval)
Hing, Peter
Mathieu, Louis Joseph Armand
Savard, Alfred, B.A. (Laval)

THE NAMES OF THE GRADUATES IN MEDICINE WILL BE FOUND IN THE MEDICAL CALENDAR.

ADMITTED TO THE DEGREE OF MASTER OF ARTS.

Mary Judson Eaton, B.A.
Rev. Nathan Gordon, B.A. (Cincinnati), B.D. and B.H. (Hebrew Union College).
Amy Jane Hayden, B.A.
John R. MacCrimmon, B.A. (Queen's)
David Benson Rogers, B.A.
Orville Sievwright Tyndale, B.A.

ADMITTED TO THE DEGREE OF MASTER OF SCIENCE.

John Boyd Baird, B.Sc. Civ.
Franklin H. Day, B.A.
Percy Harris Elliott, B.Sc. Chem
John Norison Finlayson, B.Sc.
Norman Robert Gillis, B.A.
George Leroy Guillet, B.Sc.
Robert Harvie, B.A., B.Sc. Chem
Vernon K. Krieble, Ph.B. (Brown)
Gordon McLeod Pitts, B.Sc. Civ.
Myles Herbert Roffey, B.Sc.
Gordon St. G. Sproule, B.Sc. Mi
William Stanley Vipond, B.Sc. E/eo

ADMITTED TO THE DEGREE OF DOCTOR OF PHILOSOPHY.

Robert William Boyle, M.Sc.

ADMITTED TO THE DEGREE OF DOCTOR OF SCIENCE

William Gordon Matthew Byers, M.D.
Albert George Nicholls, M.A., M.D.

ADMITTED TO THE DEGREE OF DOCTOR OF LAWS.

John Cox, M.A., LL.D., Professor of Physics, McGill University.
Rev. William Sullivan Barnes, Pastor of the Church of the Messiah, Montreal.
Martin Joseph Griffin, Parliamentary Librarian, Ottawa.
Nathan Fellowes Dupuis, M.A., F.R.S.C., Dean of the School of Mines, Kingston, Ont.
Ernest William MacBride, M.A., D.Sc., F.R.S., Professor of Zoology, McGill University.

HONORARY LL.D. DEGREES GRANTED SINCE 1890.

1890.—The Right Hon. Frederick Arthur Stanley, Earl of Derby, G.C.B., P.C.

1891.—George Mercer Dawson, LL.D. (Queen's), D.Sc., F.R.S.
Rev. Moses Harvey.

1892.—Baron Frederick Von Muller, K.C.M.G., F.R.S.

1803.—Henry T. Bovey, M.A., D.C.L., F.R.S.

1894.—Right Hon. John Campbell Hamilton Gordon, Earl of Aberdeen, M.A., G.C.M.G.
Francis Re:leaux.

1895.—Robert Craik, M.D.
William Osler, M.D., LL.D. (Edin. & Harvard).

1896.—None.

1897.—Henry Barnes, M.D., M.R.C.S.
Sir B. Walter Foster, M.D., D.C.L., F.R.C.P.
Sir Michael Foster, K.C.B., M.D., D.C.L., F.R.S.
W. H. Gaskell, M.A., M.D.
Christopher Heath, F.R.C.S.
Right Hon. Lord Lister, Bart., M.D., D.C.L., F.R.S.
Alexander Macalister, M.A., M.D., D.Sc., F.R.S.
Charles Richet.
Robert Saundby, M.D. F.R.S.P.
Sir William Turner, M.D., LL.D., F.R.S.
Claud G. Wheelhouse, F.R.C.S.

1898.—Hugh Longbourne Callendar, M.A., F.R.S.
Right Hon. Gilbert John Elliot, Earl of Minto, G.C.M.G.
Right Hon. Baron Herschell, P.C., G.C.B.
Right Hon. Sir Wilfrid Laurier, B.C.L., G.C.M.G., P.C.

1899.—James Douglas, B.A.
Bernard J. Harrington, M.A., Ph.D., F.G.S., F.R.S.C.
Rudyard Kipling.

1900.—George Frederick Barker.
Captain Alfred T. Mahan.
Joseph Frederick Whiteaves, F.R.S.C.

1901.—H. R. H. The Prince of Wales, K.G.
H. R. H. The Princess of Wales.

1902.—None.

1903.—Sir Alexander Campbell MacKenzie, Mus. Doc.
Charles Ebenezer Moyse, B.A. (London).
George Robert Parkin, M.A., LL.D. (Univ. of N.B.)

1904.—His Excellency Jean Adrien Antoine Jules Jusserand.
Hon. Mr. Justice William Warren Lynch, D.C.L.
Right Hon. John Morley, M.A.
Rev. Elson I. Rexford, M.A.
Edward L. Trudeau, M.Sc., M.D.
Edward Weston.

1905.—Albert Henry George Grey, Earl Grey & Viscount Howick, G.C.M.G., LL.M.
Thomas Coltrin Keefer, C.M.G.

1906.—Rev. James Barclay, M.A., D.D.
Andrew Carnegie, LL.D. (Glasgow & St. Andrews).
Hon. William Stevens Fielding.
Donald Macalister, M.A., M.D., D.C.L.

1907.—Alfred Kleczkowski.
Frederich Müller, M.D.
Ernest Rutherford, M.A., D.Sc., F.R.S.
Thomas Clifford Allbutt, M.D., F.R.S.
Sir William Broadbent, Bart., M.D., K.C.V.O., F.R.S.

Sir Thomas Barlow, M.D., K.C.V.O., F.R.S.
Sir Victor Alexander Haden Horsley, M.D., F.R.S.

1908.—Right Hon. James Bryce, D.C.L., P.C.
Sir Caspar Purdon Clarke, Kt., C.V.O.
Henry Marshall Tory, D.Sc.
E. A. Schäfer, D.Sc.
Right Hon. Viscount Milner.

1909.—Rev. William Sullivan Barnes.
John Cox, M.A., LL.D.
Nathan Wellowes Dupuis, M.A., F.R.S.C.
Martin Joseph Griffin.
Ernest William MacBride, M.A., D.Sc., F.R.S.
Duncan McEachran, D.V.S., F.R.S., V.S.
Gifford Pinchot.
James William Robertson, C.M.G.
James Earl Russell, Ph.D.
Hon. James Wilson.

SCHOLARSHIPS AND EXHIBITIONS.

SESSION 1908-1909.

FACULTY OF ARTS.

I. Third Year Scholarships. (Tenable for two years).

NAMES OF SCHOLARS.	SUBJECTS OF EXAMINATION.	ANNUAL VALUE.
Paterson-Smyth, Chas.	Latin or Greek and another language.	$150.00
McKinnon, Annie M.	French or German and another language.	150.00
Macnaughton, G. F	Mathematics and Physics	150.00
Couture, Réné P	Economics	150.00
Mount, Ruth	English and another language.	125.00
Plaisted, Lilian	English and another language.	125.00
Mabon, J.B.	Mathematics and Physics	125.00
Miller, Clare	Biology (1st year)	150.00
	(2nd year)	25.00
Cockfield, H. R	Latin or Greek and another language.	75.00
Murphy, Winnifred	Latin or Greek and another language.	75.00
Seymour, Louise	Latin or Greek and another language.	75.00

II. Second Year Exhibitions. (Tenable for one year).

NAMES OF EXHIBITIONERS	SUBJECTS OF EXAMINATION.	ANNUAL VALUE
Paterson-Smyth, Marjorie	Mathematics, Physics and Latin	$150.00
Schafheitlin, Anna	French, German and English	150.00
Angus, H. F	Mathematics, Physics, and French	100.00
Dewey, A. G.	Latin, French and English	100.00
Scott, A. A.	Mathematics, Physics and Latin	100.00
Warburton, H. C	Latin, English and Physics	100.00
Dowd, N. S.	Latin, English and Physics (Bursary).	25.00
Murchison, Hazel I.	Latin, English and Greek (Bursary).	25.00

III. First Year Scholarships and Exhibitions.

(1). Scholarships (Tenable for two years).

NAMES OF SCHOLARS.	ANNUAL VALUE
Couture, A. Papineau, (Montreal High School), Montreal	$150.00
French, Bertram St. G. (St. John's School), Montreal	150.00
Babcock, Charles E, (Brockville Collegiate Inst.), Brockville Ont	150.00

(2). Exhibitions (Tenable for one year).

Names of Exhibitioners.	Values.
Weagent, Reginald C. (Ottawa Collegate), Ottawa, Ont.	150.00
Gronin, Joseph, (Montreal High Scohol), Montreal	150.00
Goldblatt, Harry, (Montreal High School), Montreal	150.00
*Hyatt, Jean I., (Revelstoke High School), Revelstoke, B.C.	200.00
Joseph, Kenneth de S. (Boys' High School, Quebec) Quebec, P.Q.	100.00
Ross, Beatrice M. (Huntingdon Academy), Huntingdon, P. Q.	100.00
Clark, Stanley M., (Gault Institute), Valleyfield, P.Q.	100.00
Gnaedinger, Henrietta G. (Westmount Academy), Westmount	100.00
Manny, Louise, (Halifax Lades College), Newcastle N.B.	100.00
Lawrence, Kate W. (Sherbrooke High School), Sherbrooke, P.Q.	100.00
Bennett, Annie J. (Montreal High School), Montreal	100.00
Kert, Isaac, (Montreal High School), Montreal	100.00

* Conditional on residence in the Royal Victoria College.

REGISTER OF STUDENTS.

SESSION 1908–1909.

FACULTY OF ARTS.

FIRST YEAR.

(*McGill College*).

NAME.	HOME ADDRESS.	WHERE LAST EDUCATED.
Allan, James T	Kinnear's Mills, P.Q.	Danville Academy.
Ashby, Gerald S	Montreal	Montreal High School.
Babcock, Charles E.	Brockville, Ont.	Brockville Coll. Inst.
Barlow, Arthur F.	Ottawa, Ont.	Ottawa Coll. Institute.
†Barlow, William D	Montreal	Shortell's Acad., Montreal
*Bradbury, William J.	Bay Roberts, Nfld.	Bay Roberts Academy.
†Brown, William P.	Montreal	Montreal High School.
Budyk, Joseph.	Montreal	Montreal High School.
*Caldwell, Thomas R	Lanark, Ont.	Ashbury College, Ottawa.
*Campbell, Harry C	Ottawa, Ont.	
Campbell, William N	McCrimmon, Ont.	Alexandria High School.
Clark, Stanley M.	Valleyfield, P. Q.	Gault Inst., Valleyfield.
Cockfield, William E.	Montreal	Montreal High School.
Common, William C	Montreal	Montreal High School.
Couture, Armand P	Montreal	Montreal High School.
*Davidson, Donald A. L.	London, Eng.	Wellington College, Berks.
Davidson, Wray L.	Princeton, Ont.	Wesleyan Theo. College.
Dean, Joseph R.	Clarenceville, P. Q.	Feller Inst., Grand Ligne.
*Demers, Joseph V	St. Johns, P. Q	Jacques Cartier Nor. Sch.
*Dowling, Allan P.	Ottawa, Ont.	Ottawa Coll. Institute.
*(2) Dunsford, Geoffrey C.	Ottawa, Ont.	Sedburgh.
†Ellis, William J	Brome, P. Q.	Knowlton Academy.
*Emmans, Ross.	Montreal	Bishop's College School.
Fiske, Hollis J. M.	Florenceville, N. B	Florenceville Cons. Sch.
French, Bertram St. G.	Montreal	St. John's School.
†Gilmour, James K.	Brockville, Ont.	Upper Canada College.
Goldblatt, Harry.	Longueuil, P. Q.	Montreal High School.
*Goldsmith, Frederick W.	Barton Landing, Vt.	Barton Ldg. High School.
†Green, Robert H	Victoria, B. C.	Victoria College.
†Greenwood, Frederic C.	St. Catharines, Ont.	St. Catharines Coll Inst.
*Griffin, Gerald H	Winnipeg, Man.	Manitoba College.
Gronin, Joseph.	Montreal	Montreal High School.
Grossman, Max M.	Vancouver, B. C.	Vancouver High School.
*Guy, James W.	Carbonear, Nfld.	
Haldane, Albert J.	Benbirb, Moy, Ireld.	Milford, Armagh, Ireland.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

*Partial Student. †Conditioned Student.

NAME.	HOME ADDRESS.	WHERE LAST EDUCATED.
Hatcher, Henry G	Bonavista, Nfld.	
†Hodgson, Edwin	Hudson Heights, P.Q.	Montreal High School.
*Hughes, Wilfred P	Kemptville, Ont	
†Inns, Thomas, H.	Montreal	Diocesan Theo. College
†Johnson, Herbert L.	Montreal	
Joseph, Kenneth de S.	Quebec, P. Q	High School of Quebec.
Kert, Isaac	Montreal	Montreal High School.
Kinnear, Henry W	Quebec, P. Q	Quebec High School.
Kneeland, Stanley F.L.	Montreal	McGill Normal School.
†Ladd, Guy B	Brome, P.Q.	Sutton Academy.
Legris, Louis J. A	Louiseville, P. Q	Ottawa University.
Lemoine, Emile S	Worcester Mass.	Feller Inst., Grand Ligne
Lindsay, William.	Montreal	Private Tuition.
Lummis, Wallace J. H.	Danford Lake, PQ.	Diocesan Theo. College.
Lumsden, Walter G.	Hamilton, Ont.	Hamilton Coll. Institute.
†McCaghey, Norman F.	Quebec, P. Q	High School of Quebec.
McInnis, John L.	Thamesville, Ont.	Thamesville Grammar Sch.
*McLaren, Eric A.	Portage du Fort, P. Q.	
McLennan, W. Durie	Montreal	Montreal High School.
*MacLeod, Donald.	Ripley, Ont.	Presbyterian College.
†McVittie, Thomas J	Blackpool Lane, Eng.	Technical Coll. Blackpool.
*Marler, Leslie W	Montreal	Montreal High School.
†Martin, J. Herman.	Berlin, Ont.	Berlin Coll. Institute.
Mathewson, Frank S.	Montreal	Trinity Coll. School.
†Mathewson, James A.	Montreal	Montreal High School.
*(2)(3) Merrilees, William	Montreal	Allan Glen's, Glasgow.
*(2) Merrill, Arthur J.	Montreal	
*Mick, Henry.	Micksburg, Ont	
*Mitchell, Ernest D	Swindon, Eng.	
Muhlstock, Abraham W.	Quebec, P. Q	Boys' High School, Que.
†Naughton, Michael W.	Ballyconnerly, Ireland.	Diocesan Theo. Coll.
*Osborne, James A	Belfast, Ireland	Diocesan Theo. College.
Pearse, Walter J	Kamloops, B. C.	Victoria College.
Pedley, Hilton S	Maebashi, Joshu, Japan.	Newton School, Mass.
Percival, Walter.	Liverpool, Eng.	Diocesan Theo. College.
*(2)(3) Proctor, Samuel J	Montreal	Presbyterian College.
Quigley, William.	Snake River, Ont.	Renfrew Coll. Institute.
*Renaud, A. Reginald.	Montreal	St. John's School.
*Rivard, Emile A	Duclos, P. Q.	Pointe-aux-Trembles Sch.
Roback, Abraham A.	Montreal	Montreal High School.
Robinson, Mahlon I	Winchester Springs, Ont.	
Smith, Ernest L	Montreal	Montreal High School.
*(2) Smith, Harold F	Montreal	Crichton School
*(2)(3) Stevenson, J. Allan.	Montreal	
†Stevenson, Reginald B.	Shoal Lake, Man	Diocesan Theo. College.
†Thomson, Alex. K.	Coatbridge, Scotland	Presbyterian College.
Thomson, Herbert F	Montreal	Montreal High School.
*Town, Claude A.	Long Lake, N. Y.	Y. M. C. A. Montreal.
Walker, Herbert F	Montreal	Upper Can. Coll. Toronto.
Walker, Miles G.	Lachute, P. Q	Lachute Academy.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

*Partial Student. †Conditioned Student.

Name.	Home Address.	Where Last Educated.
*Watts, William H	Barnstaple, Eng	
*Webster, David L	Brantford, Ont.	Brantford, Coll. Inst.
Wilkes, A. Burton	Brantford, Ont.	Trinity Coll. Sch., Pt. Hope
*Wills, Arthur J. R.	Weston-Super-Mare, Eng.	Mill Hill Sch., London, Eng.
*Wilson, E. William	Montreal	Montreal High School.
*Wilson, William G. A.	Shawville, P. Q	
Young, William H	Montreal	Montreal High School.
Youngheart, Samuel	Montreal	Montreal High School.

(Royal Victoria College.)

†Alguire, Lena J.	Cornwall, Ont.	Cornwall High School
*Armour, Helen M.	Westmount	Glen Mawr. Sc., Toronto.
Bennett, Annie J.	Montreal	Montreal High School.
Boright, Beatrice M.	Mansonville, P.Q.	Stanstead College.
*Bowker, Helen L.	Granby, P.Q.	Granby Academy.
Braeuer, Alexandra	Montreal	Montreal High School.
Brown, Vera L.	Richmond Hill, L.I.	"Netherwood", Rothesay, N.B.
Cameron, Helen M.	Winchester, Ont.	Morrisburg Coll. Institute.
Campbell, Lillian M.	Ottawa, Ont.	Ottawa Coll. Institute.
*Cross, Isabel	Sapperton, B.C	Columbian College, B.C.
†Duguid, L. Amelia	Montreal	Com. & Tech. High School.
Dumaresq, Edna I.	Montreal	Miss Symmers & Miss Smith's
*Fleet, Jane D.	Montreal	S. Winifred's, Eastbourne
Freeman, Amy F.	Milton, N.S.	Clyde High School.
Gnaedinger, H. G.	Westmount	Westmount Academy.
†Going, M. Chase	Montreal	Science Hill, Shelbyville, Ky.
Hadrill, Beatrice M.	Montreal	Montreal High School.
Hall, Constance M.	Calgary, Alta.	"All Hallows," Yale, B.C.
*Harrington, C. Eva	Montreal	Trafalgar Institute.
†Henry, Marguerite H.	Montreal	Calgary High School.
*Hissem, Jessie M	Ellsworth, Kan.	Wilson College, Kan.
Hyatt, Jean I.	Revelstoke, B.C.	Revelstoke High School.
*Inkman, Beatrice M.S.	Agassiz, B.C.	"All Hallows," Yale, B.C
*Jackson, Constance M.	Westmount	Montreal High School.
Lawrence, Kate W.	Sherbrooke, P.Q	Sherbrooke High School.
*Lawson, Garnett B	Burke's Garden, Va.	Trafalgar Institute.
Longworth, Ethel C.	Charlottetown, P.E.I.	Prince of Wales College.
*Lusk, Olive L.	Cookshire, P.Q.	King's Hall, Compton, P.Q.
*McGillis, Harriet I.	Westmount	Miss Symmers & Miss Smith's.
*McGillis, Sara B.	Westmount	Miss Symmers & Miss Smith's.
McLaurin, Bernice M.	Ellsworth, Kan.	Ellsworth High School.
McLaurin, Clarissa E.	Montreal	Montreal High School.
Manny, Louise	Newcastle, N.B.	Halifax Ladies' College.
†Mathewson, Winifred	Montreal	Montreal High School.
Oughtred, Eleanor	Montreal	Montreal High School.
*Owens, Charlotte M	Westmount	Havergal Coll. Toronto.
Pennington, Marg. H.	Montreal	Normal School, Truro, N.S.
*Pinhey, Constance E. R.	Hudson Heights, P.Q.	Trafalgar Institute.
Ross, Beatrice M.	Huntingdon, P.Q.	Huntingdon Academy.
*Ross, M.. Jean	Montreal	Trafalgar Institute.

*Partial Student. †Conditioned Student.

NAME.	HOME ADDRESS.	WHERE LAST EDUCATED.
Scott, Ruby G.	Montreal	Montreal High School.
Stewart, Mary A. R.	Montreal	Montreal High School.
*Sutherland, Margaret D.	Montreal	
*Weir, Beatrice D.	Montreal	
*Winslow, Frances C	Montreal	Trafalgar Institute.
Younger, Mildred R.	Montreal	Montreal High School

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SECOND YEAR.

(McGill College.)

NAME	HOME ADDRESS.
Angus, Henry F	Montreal.
Argue, Alan F.	Carp, Ont.
‡Armstrong, T. Edgar	Montreal.
*Beattie, Walter T.	Montreal.
Bissett, John E.	Winnipeg, Man.
Booth, Walter P.	Lyn, Ont.
Bridges, James W.	Cascumpec, P.E.I.
‡Brock, Eustace A.	Winnipeg, Man.
Cherry, William M.	Toledo, Ohio
‡Christie, A. Stanley	Apple Hill, Ont.
Cook, Geoffrey H.	Quebec, P.Q.
Coote, James A.	Oakville, Ont.
*Cornwall, Albert G.	Waterville, Q.
Creaghan, T. Cyril	Newcastle, N.B.
Cunningham, Stanley H.	Montreal.
Currie, George S.	Perth, Ont.
‡Davidson, Roy A.	St. John, N.B.
‡Daw, P. Ford	Hamilton, Ont.
Dewey, Alexander G.	Montreal.
Dixon, Shirley G.	Montreal.
Donald, James R.	Montreal.
Dowd, Norman S	Ottawa, Ont.
Duval, Leon M	St. John's, P.Q.
Fletcher, Gilbert H.	Melbourne, P.Q.
*Gale, William H	Ormstown, P.Q.
‡Gibbs, Howard W.	Leominster, Mass.
Gillmor, Dan. P.	St. George, N.B.
*Goudie, Robert.	Rawdon, P.Q.
*Haden, Francis J.	Birmingham, Eng.
Hannah, George K.	Montreal.
Heney, Theodore B.	Montreal.
Herschorn, Hyman E.	Montreal.
*Hillis, Harry H.	Toledo, Ont.
Howard, Wilbert H	Montreal.
*Hurlbut, N. Argyle.	Bedford, P.Q.
‡Irving, W. Gordon	Vernon River Bridge, P.E.I.
*Isherwood, Percy, B.A.	Liverpool, Eng.
‡Jacobs, Joseph H.	Caughnawaga, P.Q.
Kerry, John	Montreal.
King, A. Nelson	Victoria, B.C.

*Partial Student. ‡Conditioned Undergrduate.

NAME.	HOME ADDRESS.
Larivière, Henry A.	Bethany, P.Q.
Livinson, A. Jacob.	Montreal.
Lochhead, Allan G.	Ste. Anne de Bellevue, P.Q.
*(3)McCuaig, Donald A.	Laggan, Ont.
McGoun, A. Forster.	Westmount.
‡McGoun, George G.	Westmount.
*(3) MacKay, Henry J.	Brandon, Man.
MacLean, A. Reginald M.	Woodstock, N. B.
Maass, Otto.	Montreal.
‡Mewburn, Frank H. H.	Lethbridge, Alta.
Millman, Lazarus.	Montreal.
Morris, J. Frederick.	Bristol, P. Q.
Morris, Robert.	Birkenhead, Eng.
Moyse, Robert E.	Montreal.
*Munn, John E. B	Glasgow, Scotland.
Newcombe, Edmund F.	Ottawa, Ont.
*Nicholson, William G	Montreal.
‡Roberts, Lawrence H	Ottawa East, Ont.
Scott, Arthur A.	Montreal
*Scrimgeour, Charles E	Montreal.
*Smith, Wilson W.	Coalsnaughton, Scotland.
*Steenson, Isaac.	Belfast, Ireland.
Sturgeon, W. J	Nelson, B. C
Tannenbaum, Laurence.	Montreal.
*(3) Thomson, William K.	Coatbridge, Scotland.
*Treanor, George G	Streetsville, Ont.
*(3) Tulk, A. Edward	Vancouver, B. C.
Wanklyn, Andrew A	Montreal
Warburton, Hugh C	Charlottetown, P. E. I.
Weir, George	Saskatoon, Sask.

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(Royal Victoria College.)

*Bernstein, Minnie.	Montreal.
‡Browne, A Gladys	Montreal '
*Browne, M Myrtle.	Montreal
*Caswell, Edna	Derby Line, Vt.
Craig, Evelyn.	Montreal
*Ellison, Ellen F	Vernon, B. C.
‡Ellison, Myra K.	Vernon, B. C.
Greer, Jemima L.	Chateauguay Basin, P. Q
Grimes, Evie M	Montreal.
Hammond, Doris J. S	Montreal .
Hayden, Mabel G	Westmount
‡Hill, Anna K	Montreal
Hulburd, Ethel E	East Farnham, P. Q.
*Loud, Hilda C.	Montreal.
MacAdam, Hazel C.	Westmount
MacDonald, Susan V.	Montreal.
MacEwen, Violet M	Westmount.

The figure (2), (3) or (4) prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

*Partial Student. ‡Conditioned Undergraduate.

NAME	HOME ADDRESS.
*McGibbon, Mary H	Montreal.
Macnaughton, Jean L. M	Victoria, B. C.
MacQueen, Emma H	New Glasgow, N. S.
Murchison, Hazel I	Montreal.
‡Olmstead, Helen F	Sutton, P. Q.
Reid, Florence C	Westmount, P. Q.
Robertson, Mildred H	Westmount
Schafheitlin, Anna	Montreal.
*Shanly, Mary	Montreal.
Slack, A. Gertrude	Montreal.
Smyth, Marjorie P	Montreal.
Thornton, Helen F	Portage la Prairie, Man.
VanVliet, Leonora M	Lacolle, P. Q.
‡Wadleigh, Ruby R	Ulverton, P. Q.
Williams, Marion F	Cowansville, P. Q.
‡Wilson, Winifred E.	Montreal.

THIRD YEAR.

(McGill College.)

*(4) Aikins, Charles C. C.	Winnipeg, Man.
‖Armstrong, Douglas	Ottawa, Ont.
‖Bruneau, I. Edgar	Montreal.
‖‡Cassels, W. L. Lyttleton,	Ottawa, Ont.
Cockfield, Harry R	Montreal.
Couture, Réné P	Montreal.
Cushing, Charles	Montreal.
de Sola, Bram C	Montreal
‖Digby, Reginald W	Brantford, Ont.
‖Douglas, H. Townley.	Montreal.
*(4)Drury, Archibald K	Montreal
Elder, Aubrey H	Montreal.
‖‡Gardiner, Egbert J	London, Ont.
Gordon, J. Thom	Grantley, Ont.
Hutchinson, Samuel A	Outremont.
‖Kolber, Joseph	Montreal.
Macdonald, Alec. B	Athelstan, P. Q.
‖McGannon, Edward M.	Brockville, Ont.
*MacLaren, Walter A	Montreal.
‖‡McMahon, Edward G	Ottawa, Ont.
McMurtry, Alex. O	Montreal.
Macnaughton, Gordon F	Montreal.
Mabon, J. Bertram	Montreal.
Mariotti, Humbert C. G	Montreal.
*Moule, Herbert	London, Ont.
Powles, Percival S. C	Montreal.
Prentice, Norman	Montreal.
‖Ramsay, Irving D	Waskada, Man.
‡Reilly, J. Clark	Montreal

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*Partial Student ‡Conditioned Undergraduate ‖Double Course Student.

NAME.	HOME ADDRESS.
Robinson, Bernard S.	Strathroy, Ont.
‖Ross, S. Graham	Dundas, Ont.
Runnells, George W	Granby, P. Q.
*(4) Scott, William B.	Quebec, P. Q.
*Shoster, Abraham	Montreal.
*Sinclair, Arthur J.	Kirkhill, Ont.
Smyth, Charles P.	Montreal.
Solomon, Edward	Montreal.
*Street, Richard W.	Montreal.
Sutherland, Francis C.	Richmond, P.Q.
Thorne, Oliver	Montreal.
Tippet, Richard S.	Westmount.
Trainor, Owen P	Charlottetown, P.E.I.
‡Wilson, Percy D.	Ottawa, Ont.
Wood, Frederic G. C.	Victoria, B.C.

(Royal Victoria College.)

‡Badgley, E. Ruth	Montreal
‡Baylis, Dora C.	Montreal.
Bennetts, Edith E.	Ottawa, Ont.
Brehaut, Cora	Murray Harbor, P.E.I.
Brower, Margaret N.	Philadelphia, Pa.
Brownlee, Hazel	Westmount.
Carr, Robena M.	Trout River, P.Q.
Cruickshank, Eleanor	Windsor, Ont.
Green, Cecelia R.	Victoria, B.C.
*Harrington, Lois S.	Montreal.
Johnston, Charlotte L.	Kingsey Falls, P.Q.
Lamb, Elvie D. M.	Granby, P.Q.
Lawlor, Emma G	Westmount.
McEwen, Helen F.	Carleton Place, Ont.
McKinnon, Annie M.	Kimberley, P.Q.
McWhinney, M. Olive	Vancouver, B.C.
Miller, Clare B.	San Luis Potosi, Mexico
Mount, B. Ruth	Westmount.
Murchison, Vivian G. V.	Montreal.
Murphy, A. Winnifred	Montreal.
Newell, Annie B.	Montreal.
Plaisted, Lilian D. W.	Dunham, P.Q.
Rosenberg, Hannah N.	Montreal.
Seymour, Louise E.	Montreal.
*Skaife, Marguerite	Montreal.
Taylor, Margaret	Montreal West.
Trenholme, Katherine T.	Westmount.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

*Partial Student. ‖Double Course Student. ‡Conditioned Undergraduate.

Fourth Year.

McGill College.

Name	Home Address.
‖Archibald, Kenneth	Montreal.
Bole, Thomas H.	Pembroke, Ont.
Bradley, William L.	Mount Forest, Ont.
Cameron, Donald R.	Ottawa, Ont.
‖Canegata, David C.	Christiansted, D.W.I.
Carey, William V	Hamilton, Ont.
Cheesbrough, Hilton S	Westmount.
‖Clouston, Howard R.	Huntingdon, P.Q.
Corbett, Edward A.	Elm Creek, Man.
Daw, Herbert B	Hamilton, Ont.
Dennison, Lawrence G.	Westmount.
Drummond, Guy M.	Montreal.
Fisher, R. Eric	Montreal.
‖Fleet, C. A. Robertson	Montreal.
‖*Geggie, Harold J. G.	Beauport, P.Q.
‖Gliddon, William O	Ottawa, Ont.
Gordon, Walter H.	Montreal.
Hale, Charles A.	Granby, P.Q.
Harvey, Charles H.	Zion City, Ill.
Hatcher, Albert G.	Bonavista, Nfld.
Hindley, Wilbur W.	Fergus, Ont.
‡Holden, Herbert L. L.	Victoria, B.C.
Keays, James A.	Vancouver, B.C.
LeMesurier, C. Stuart	Montreal.
McGougan, Alex. G.	Glencoe, Ont.
MacKenzie, James A	Wood Islands, P.E.I.
McNeill, John T.	Elmsdale, P.E.I.
‖Mavety, J. LeRoy	Ottawa, Ont.
Meldrum, W. Buell	Hull, P.Q.
Moodie, Robert T.	Montreal.
Packard, Mortimer L.	Westmount.
Paterson, Edward R.	Montreal.
Pedley, Hugh S.	Montreal.
Plimsoll, A. Reginald W.	Montreal.
Richardson, John A.	Montreal.
‖Ross, Gordon	Montreal.
‖Shannon, W. Lloyd	Vancouver, B.C.
Surprenant, Thomas S. H.	Lacolle, P.Q.
Townsend, Charles L.	Montreal.
Tremblay, Joseph A.	Montreal.
Waterston, Douglas	Montreal.
‖Wilson, T. Edgar	Langley, B.C.
Wodehouse, Reginald	Colchester, Eng.

(Royal Victoria College.)

Brown, Theodora W.	Westmount.
Elliott, Edith E.	Westmount.
Estabrooks, Florence C.	St. John West, N.B.
Gray, Annie R.	Pembroke, Ont

*Partial Student. ‖ Double Course Student. ‡Conditioned Undergraduate.

NAME.	HOME ADDRESS.
Green, Pearl A.	Vancouver, B.C.
McDonald, Jessie.	Montreal.
Massé, Alice E.	Grande Ligne, P. Q.
Mitchell, Ada L.	Montreal.
Norris, Ruby A	Westmount.
Schafheitlin, Gertrud	Montreal.
Slattery, Annie	Port Morien, N. S.
*Thompson, Eileen B.	Montreal.
Vipond, Florence M.	Hudson, P. Q.
Willis, F. Dorothy	Toronto, Ont.
Wilson, Florence M.	Ottawa, Ont.
Wisdom, Bessie B.	St. John, N. B.

PARTIAL STUDENTS TAKING SPECIAL COURSES FOR TEACHERS IN ARTS.

Archibald, Henry F.
Arnton, M. Ethel
Barr, Harriet.
Budden, Jessie M.
Dupuis, Jeanne.
Goulden, Gertrude.
Hebden, Nora M.
Henschel, Ella.
Idler, May, B.A.
James, Agnes S., B. A.
Irwin, M. Eleanor.
Lamb, Maud.
Morrow, Edith.
Mowatt, E. Rae, B.A.
Norris, Amy.
Patterson, Isabel R.
Patterson, Jean K.
Rorke, Mabele L., B.A.
Ryan, Esther L., B.A.
Shaw, Henrietta A.
Simpson, Edith P., B.A.
Tait, Winifred A.
Taylor, Gladys H.
Varney, Jessie M.
Warriner, William Henry, M.A.
Webster, Hilda G.
Young, Jessie H.

FACULTY OF APPLIED SCIENCE.

FIRST YEAR.

NAME.	HOME ADDRESS.	WHERE LAST EDUCATED.
†Abbott, William H	Westmount	Shortell's Academy.
†Adam, Joseph A.	Montreal'	
†Adam, Réné	Quebec, P. Q.	Montreal College.
Alexander, Edgar D.	Westmount	Montreal High School.
Angus, Roy F.	Regina, Sask.	Regina Collegiate Inst.
‖Armstrong, J. Douglas.	Ottawa, Ont.	
†Asselin, Leopold	Montreal	Private Tuition.
*(2) Austin, Morris	Montreal	Montreal High School.
*Barnaby, Hazen O.	St. John, N. B.	Private Tuition.
Barnes, Frank	Port Hope, Ont.	Port Hope High School.
Beardmore, Everett C.	Toronto, Ont.	Loretto School, Scotland.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

*Partial Student. †Conditioned Student. ‖Double Course Student.

NAME.	HOME ADDRESS.	WHERE LAST EDCATED.
*(2) Beaulne, Ernest	Montreal	Stanstead College.
Bell, Donald A. S.	Ottawa, Ont.	Ottawa Collegiate Inst.
†Bell, William E	Montreal.	Montreal High School.
†Biddulph, Richard H. H.	Reading, Eng.	Elstow Sch., Bedford, Eng
†Blair, Donald.	Ottawa, Ont.	Private Tuition.
Bolan, William M.	Montreal	St. Patrick's School.
Bonyun, W. Austin	San Fernando, Trinadad	Parkdale Coll. Inst.
*Bowie, William E. P.	Montreal,	Abingdon School.
*(2) Boyd, Laurence C., B.A.	Bobycaygeon, Ont.	Corpus Christi, Oxford.
Boyd, Thornton B.	Bobcaygeon, Ont.	Radley College, Eng.
Boyd, Winnette W	Bobcaygeon, Ont.	Shrewsbury Sch., Eng.
Braham, Bartholomew	Montreal	St. Patrick's School.
Brisbane, John S.	Montreal	Westmount Academy.
†Brophy, George P	Ottawa, Ont.	Ottawa Collegiate Inst.
*(2) Brosseau, Louis P.	St. John's, P. Q.	Ottawa University.
†Brown, Lawrence	Ottawa, Ont.	Ottawa Collegiate Inst.
Brown, Michael J.	Montreal	St. Patrick's School.
Burke, Michael T., B. A.	Montreal	Loyola College.
Burr, Arthur V	Bloomfield, Ont.	Picton High School.
*Caldwell, Thomas R.	Lanark, Ont.	Ashbury College, Ottawa.
Calkins, Harold A.	Montreal	Baltimore Polytec. Inst.
Cameron, Alan E.	Ottawa, Ont.	Ottawa Collegiate Inst.
*(2)Cardinal, Emile.	Montreal	Shortell's Academy.
Casey, Joseph F.	Montreal	Mt. St. Louis Institute.
†Cash, George S.	Wincanton, Eng	Clifton College, England.
‖Cassels, W. L. Lyttleton.	Ottawa, Ont	
Clark, J. Hamilton.	Ottawa, Ont.	Ottawa Collegiate Inst.
Cohen, Moise J.	Vancouver, B.C.	Vancouver High School.
Cohen, Nathan B.	Montreal.	Montreal High School.
Cole, Harold F.	Ottawa, Ont.	Ottawa Collegiate Inst.
Coombes, Bernard D.	Winnipeg, Man.	St. John's Coll., Winnipeg
†Cooper, Corin H.B.	Frome, Eng.	King's Coll., Taunton, Eng.
*Coote, James A.	Montreal.	Oakville High School.
*(2)Crockett, Thomas J.	Danville, P.Q.	
Cummer, Robert L	Hamilton, Ont.	Hamilton Collegiate Inst.
*Cunningham, Stanley H.	Montreal	Montreal High School.
*Davidson, Donald A. L.	London, Eng.	Wellington College, Eng.
Davidson, W. Joseph.	Westmount.	Westmount Academy.
Davis, John C.	Montreal.	Loyola College.
*(2)Demers, John C. A.	St. John's, P.Q.	Jacques Cartier Normal School.
DesRosiers, Arthur.	Ottawa, Ont.	Ottawa University.
*Donald, James R.	Montreal	Montreal High School.
*Dowling, Allan P.	Ottawa, Ont.	Ottawa Collegiate Inst.
Downes, Michael A., B.A. (Laval)	Montreal	Loyola College.
†Drummond, Kevin S.	Midland, Ont.	Trinity College School.
Duffield, Colin M.	London, Ont.	London Collegiate Inst.
Duggan, Herrick S.	Sydney, N.S.	

The figure (2), (3), or (4), prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

* Partial Student. † Conditioned Student. ‖ Double Course Student.

Name.	Home Address.	Where Last Educated.
†Duval, J. Maurice	Montreal	Shortell's Academy.
Edwards, Herbert L.	Ponoka, Alta.	Woodstock College.
Elliott, Allan J.	Westmount.	Westmount Academy.
†Ethier, Leonard E.	St. Lin-des-Laurentides	Mt. St. Louis Inst.
Fay, Leonard W.	Knowlton, P.Q.	Stanstead College.
Finley, Harold J.	Lachine, P.Q.	Lachine Academy.
*(2)Fuller, G. LeRoy.	Farnham, P.Q.	Stanstead College.
Futterer, Edward	Albany, N.Y.	Albany High School.
*(2)Galloway, Charles C.	Grand Forks, B.C.	Vancouver College.
*(2)Garth, Charles H.	Rosemere, P.Q.	Montreal High School.
Gass, Laurence H.	Montreal West.	Montreal High School.
Gaudion, John H.	Ft. Covington, N.Y.	Ft. Covington High Sch.
*(2)Gnaedinger, F. Theo.	Westmount.	Wykeham House School.
*(2)Gohier, J. Ernest.	St. Laurent, P.Q.	St. Laurent College.
*Goldsmith, Frederick W.	Barton Landing, Vt.	Barton Landing High Sc.
Goode, Thomas G.	Westmount.	Westmount Academy.
†Gougeon, Hugh D.	Saskatoon, Sask.	Manitoba College.
Graham, Ewen J.	Apple Hill, Ont.	Shortell's Academy.
†Graham, Jack.	Ottawa, Ont	Ashbury College, Ottawa.
*Grattan, Paul.	Bushey, Herts, Eng	King's Sch., Cambridge.
*(2)Green, F. Douglas L.	Tacubaya, Mexico.	Bishop's College School.
Hadley, Clifford D	Montreal	Montreal High School.
Hall, Edward P.	Quebec, P.Q.	High School of Quebec.
Hamilton, David W.	Chicago, Ill	St. John's Military Acad.
†Hanington, Arthur E. W.	Ottawa, Ont	Ottawa Collegiate Inst.
Harvey, Ernest R. (Arch.)	Lyndhurst, Ont.	Athens High School.
Hayward, John G.	Brockville, Ont.	Brockville Coll. Inst.
Hetherington, Errol A.	Quebec, P.Q.	Private Tuition.
Heurtley, Ernest S.	Pulborough, Eng.	Private Tuition.
Heward, Francis S.	Montreal	St. John's School.
Hodgson, Angus W.	Montreal	Private Tuition.
†Holgate, Henry W.	Westmount.	Westmount Academy.
†Hugessen, Adrian K	London, Eng.	Eton College, Eng.
Hugh-Jones, Evan B.	Wrexham, N.W.	Oundle School, N. Hants.
†Hughson, John W.	Ottawa, Ont.	
Hull, Harold L.	Johannesburg, S.A.	Private Tuition.
Hutchins, George R.	Montreal.	Montreal High School.
†Hyman, J. Stanley.	Westmount.	Private Tuition.
Hyman, William S.	Fox River, Gaspe.	Private Tuition.
Jelly, Ernest M.	Carleton Place, Ont	Carleton Place High Sch.
Johnson, Geoffrey A.	Ottawa, Ont.	Ottawa Collegiate Inst.
*(2)Jones, Guy Carleton.	Halifax, N.S.	
*(2)Jordan, Ernest H.	Montreal.	
Kearns, James A.	Montreal.	Mt. St. Louis Institute.
King, Gerald L.	Ottawa, Ont.	Ottawa Collegiate Inst.
Kirby, Sidney S.	Ottawa, Ont.	Ottawa Collegiate Inst.
LaForest, J. Maurice.	Montreal.	Mt. St. Louis Institute.
Landers, T. Leon S.	Farnham, P.Q.	Bishop's College.
Lapp, Frank W.	Cobourg, Ont.	Cobourg Collegiate Inst.
Lauder, Lester E.	Maisonneuve, P.Q.	Montreal High School.

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* Partial Student. † Conditioned Student.

NAME.	HOME ADDRESS.	WHERE LAST EDUCATED.
Lefebvre, Eugéne	Montreal	Montreal High School.
*(2)Legris, Charles E.	Arctic, R.I.	St. Mary's Coll., Montreal
*(2) (3)Legris, Joseph A.	Louiseville, P.Q.	Ottawa University.
*(2)Lesage, George W.	Montreal	Shortell's Academy.
Lewis, Mostyn	Montreal	Wykeham House School.
*(2)Lindsay, Neville H.	Calgary, Alta.	St. John's Coll., Winnipeg.
†Logan, William H.	Montreal	Private Tuition.
†Lynch, James A.	Old Navy, Hastings, B'does.	Lodge Sc., B'does.
Lynch, T. Leo.	Fredericton, N.B.	Loyola College.
McAvity, Ronald A.	St. John, N.B.	Brooklyn Polytechnic.
*(2)McCammon, John W.	Inverness, Que	Inverness Academy.
McCuaig, Thomas.	Vankleek Hill, Ont	Vankleek Hill Collegiat.
†MacDermot, Edward C.	Montreal	Private Tuition.
†Macdonald, Duncan G.	Montreal	Upper Canada College.
†MacDonald, Glenlyon C.	Fort Qu'Appelle, Sask.	Heidelberg Coll., Ger'y.
McDougald, Charles W. H.	Ottawa, Ont.	Ottawa Collegiate Inst.
*(2) McDougall, John J.	Glace Bay, N. S.	St. Francis Xavier College
‖McGannon, Edward M	Brockville, Ont.	Brockville Collegiate.
*McGregor, Hugh R.	Westmount	Private Tuition.
McKay, Allan G. (Arch).	Westmount	Montreal High School.
†MacKenzie, Alexander W.	Bedford, N.S.	Halifax County Academy.
McLeod, Clement K	Montreal	Montreal High School.
Macleod, Donald L.	Summerside, P. E. I.	Prince of Wales College.
‖McMahon, Edward G.	Ottawa, Ont.	
†McMahon, James W	St. Albans, Vt.	St. Catherines Coll. Inst.
†McMaster, Harold G.	Montreal	St. Alban's Sch. Brockville
McRae, Joseph P	Ottawa, Ont.	Ottawa Collegiate Inst.
†Masson, Donald H	Ottawa, Ont.	Ashbury College, Ottawa.
Mather, Richard H.	Ottawa, Ont.	Ottawa Collegiate Inst.
†Matheson, Walter	Charlottetown, P. E. I.	Prince of Wales College
May, William T.	Ottawa, Ont.	Ottawa Collegiate Inst.
Metcalfe, Eric D	Montreal	Private Tuition.
†Moseley, Frank A.	Montreal.	Crichton School.
†Nichols, L. Howard	Montreal	Montreal High School.
Norris, J. Hillyard	Westmount.	Westmount Academy.
†O'Brien, John L	Ottawa, Ont.	Ottawa Collegiate Inst.
Ogilvie, James C	Glenarm, Tivoli, Cork	Monkton Combe Sch., Eng.
†Paddon, Hubert A.	St. John's Nfld.	Bishop's College School.
†Patterson, Arthur C	Macleod, Alta.	Upper Canada College.
Peden, Ernest.	Montreal West.	Montreal High School.
Peters, James D	St. John, N. B.	Acadia College.
*Pitts, Andrew A	Montreal.	Grammar School.
Prince, Preston G	Montreal	Feller Inst., Grande Ligne
†Pullen, John.	Westmount.	Montreal High School.
Randolph, Thomas G.	Frome, Somerset, Eng.	Northern Inst., Leeds.
Redpath, Ronald F	Montreal.	
†Reid, Arthur W.	Ottawa, Ont.	London Collegiate Inst.
†Reid, Earle	Coaticook, P. Q.	Stanstead College.

*Partial Student †Conditioned Student. ‖Double Course Student.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

*Partial Student. †Conditioned Student. ‖ Double Course Student.

NAME.	HOME ADDRESS.	WHERE LAST EDUCATED.
†Reinhardt, Ernest A.	Westmount	Private Tuition.
*Renaud, A. Reginald	Montreal	St. John's School.
Rennoldson, David B.	Westmount	St. John's School.
Ressler, Hime	Montreal	Montreal High School.
†Richards, Hugh (Arch.)	Ottawa, Ont	Private Tuition.
Robb, James B	Westmount	Westmount Academy.
Robertson, Charles	Brantford, Ont.	Brantford Collegiate Inst.
Rolland, Herman J.	Montreal	Crichton School.
†Routledge, Henri O	Vancouver, B. C.	King's College School.
Roy, James L	Bedford, N. S.	Dalhousie University.
Russell, Allan H.	Renfrew, Ont.	Renfrew Collegiate Inst.
Ryan, Edward A.	Montreal	Mt. St. Louis Institute.
Salter, John N.	Carleton Place, Ont.	Carleton Place High School
Sargent, Albert E	Westmount	
†Saunders, Rodney V.	Sandy Cove, N. S.	Yarmouth County Acad'y.
*Savage, Geoffrey	Montreal	Bishop's College School.
†Sawyer, Everest P.	Montreal	Private Tuition.
Schippel, Henry F	Montreal	Montreal High School.
Shaw, Douglas A.	Montreal	Montreal High School.
†Sherman, John J.	Hawkesbury, Ont.	Hawkesbury High School.
†Silver, Frank N.	Westmount	Montreal High School.
Skelton, Ralph	Montreal	Montreal High School.
Smith, Briton O.	Montreal	Montreal High School.
*(2)(3)Smith, Harold F	Montreal	
†Spafford, Earle S.	Lennoxville, P. Q.	Bishop's College School.
†Starke, Henry M	Rochester, N. Y	Trinity College School.
*(2)Stevens, S. Ruston	Stanstead, Que.	Stanstead College.
Stroud, Wallace D	Montreal	St. John's School.
Suckling, Gerald A	Montreal	Wykeham House School.
†Taylor, Gould S.	Montreal	Private Tuition.
Tebbutt, Oswald N.	Cambridge, Eng.	Abbotsholme, Derby, Eng.
*Thom, Gordon O.	Westmount	Upper Canada College.
Thomas, Harold C	Coaticook, P. Q	Stanstead College.
†Tolzess, Isadore L.	Ottawa, Ont	Ottawa Collegiate Inst.
*Town, Claude A	Long Lake, N. Y	Y. M. C. A. Montreal.
Traversy, Valmore I.	Montreal	St. John's School.
Turnbull, Alan.	Hamilton, Ont.	Upper Canada College.
Vallance, H. Walter	Hamilton, Ont	Highfield School, Hamilton
†Veilleux, William H	Sherbrooke, P. Q.	Ottawa, College.
Warburton, J. Arthur	Charlottetown, P. E.I.	Prince of Wales College.
Warwick, George W	Brockville, Ont.	Brockville Collegiate Inst
Weber, K. Rudolph.	Montreal	Montreal High School.
*Webster, David L	Brantford, Ont	Brantford Collegiate Inst.
Weir, James.	Saskatoon, Sask.	Petrolea High School, Ont
Wheatley, James H	Westmount	Westmount Academy.
†Whittall, Fred R.	Westmount	Montreal High School.
†Williams, James C.	Orangeville, Ont.	Iscwin College, S. Wales.
*Wills, Arthur J. R.	Weston-Super-Mare, Eng	Mill Hill School, London.
*Wilson, E. William	Montreal	Montreal High School.

The figure (2) (3), or (4), prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

*Partial Student. †Conditioned Student.

NAME	HOME ADDRESS	WHERE LAST EDUCATED.
Wilson, William B	Ottawa, Ont.	Ottawa Collegiate Inst.
†Wright, William E.	L'Original, Ont.	Hawkesbury High School.
†Young, Harry O.	White Plains, N. Y.	St. John's School, Montr'l.

SECOND YEAR

NAME.	HOME ADDRESS.
Alward, Ernest T.	St. John, N. B.
Alwood, Erank H	Chapelton, Jamaica.
‡Anderson, John G	Victoria, B. C
‡Anderson, John R.	Halifax, N. S .
Archibald, Earnest B	Montreal.
Bacon, Thomas H.	Montreal.
*(3) Baylis, Mervyn E	Ste. Anne de Bellevue,P.Q
‡Beauvais, Louis J	Chicago, Ill.
*(3) Bisson, Leonard	Hull, P. Q. . .
Boast, Richard G.	Richmond, P. Q
Bolton, Philip L.	St. Lambert, P. Q.
Brebner, William I	Georgetown, B. Guiana.
Briercliffe, Henry C. D.	Richland, Man.
Brotherhood, Wilfred C	Stratford, Ont.
*Burton, John R.	Verdun, P. Q.
‡Campbell, Colin	Ottawa, Ont.
Carnwath, James	Riverside, N. B.
Child, Cyril G	Calgary, Alta.
‡Christie, John E	Lachute, P. Q.
Clark, Raymond B.	Highgate, Jamaica.
‡Collier, Harold F.	Montreal.
‡Connolley, William J	Up Park Camp, Jamaica
‡Cram, Haldane R.	Ottawa, Ont.
‡Cushing, Arthur G	Montreal.
‡Darling, Gordon	Montreal.
*Davignon, Cyrille	Knowlton, Quebec.
*(3) Day, Thomas E.	Parrsboro, N. S .
deGruchy, Charles S.	Montreal.
*Dennison, Lawrence G	Westmount.
‡Dixon, Walter U	Montreal.
Dodd, Geoffrey J.	Newport, Jamaica.
*Durie, William A.	Ottawa, Ont.
Elliott, Fergus E.	Montreal.
Evans, Alfred J. L.	Quebec, P.Q.
Falcke, Joseph.	Cape Town, S. Africa.
†‡Flewin, Walter R.	Port Simpson, B.C.
‡Forbes, D. Stuart.	Montreal .
Forman, Edmund G. H.	Coldon, Port of Menteith, Scotland
‡Fortier, Frank A	Westmount.
Foster, Francis W.	Montreal .
†‡Gall, Arthur.	Montreal.
*(3)Gartshore, W. Moir.	Hamilton, Ont.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

* Partial student † Conditioned student. ‡ Conditioned Undergraduate.

NAME.	HOME ADDRESS.
Gillies, Clyde C.	Toronto, Ont.
*Gladman, Cyril R. A.	Lindsay, Ont.
Glasmacher, Walter A.	Ottawa, Ont.
Gnaedinger, Cedric W.	Montreal.
‡Gorman, T. Clarence.	Ottawa, Ont.
‡Gregory, Philip S., B.A. (Bishop's).	Fredericton, N.B.
*Halliday, Charles I.	Ottawa, Ont.
Hasbrouck, Bernard.	Nyack-on-Hudson, N.Y
‡Hawkins, Stuart S.	Montreal.
Henry, Robert A. C.	Calgary, Alta.
Holland, Francis C.	Leamington, Eng.
Hooper, J. Harold.	North Milton, P.E.I.
*Illievitz, Abe B.	Montreal.
Irwin, William E. C.	Ottawa, Ont.
Ivey, Charles H.	London, Ont.
Johnston, Robin L.	St. John, N.B.
‡Johnston, Roland C.	Renfrew, Ont.
Kelly, Albert J.	Edmonton, Alta.
Kingsley, Edward R.	Lindsay, Ont.
Koch, Ernest C.	Montreal.
Linagh, Ronald K.	Maisonneuve, P.Q.
‡Lipsey, Joseph.	Montreal.
‡Lockhart, Earle A.	Montreal.
Macaulay, James R.	Montreal.
‡MacDonald, G. Heath.	Murray Harbor, P.E.I.
††MacDonald, Percy E.	Hamilton, Ont.
McDougall, Roderic J.	Vankleek Hill, Ont.
‡McInnes, Hugh A.	Elkmouth, B.C.
Mallory, G. E. Leigh.	Bowmanville, Ont.
*(3)Millican, A. Gordon.	St. John, N.B.
Morkill, Frank E.	Lima, Peru.
Murphy, William H.	Montreal.
Murray, George E.	Ottawa, Ont.
‡Nares, H. George.	Winnipeg. Man,
O'Leary, Frederick J.	Laggan, Alta.
‡Oliver, Stuart E.	Quebec, P.Q.
Oughtred, Lawrence W.	Marbleton, P.Q.
Ovalle, N. Keith, B.A. (St. Joseph's),	Babylon, Long Island
‡Peck, Hugh A.	Montreal.
Pengelley, Walter G.	Balaclava, Jamaica.
‡Philips, Campbell.	Westmount.
‡Planche, Clifford C.	Cookshire, P.Q.
*(3)Porter, Cecil G.	St. John, N.B.
‡Ralston, Edward da F.	Sao Paulo, Brazil.
Ray, Hugh P.	Westmount
‡Richardson, Alan I.	Montreal.
‡Richardson, Creighton E.	Montreal.
‡Robinson, Duncan S.	Toronto, Ont.
‖Ross, Gordon.	Montreal.
Sankey, Sydney J.	Wolverhampton, Eng.

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*Partial Student. ‡Conditioned Undergraduate. †Conditioned Student.

NAME.	HOME ADDRESS.
‡Scott, Allen N.	Ottawa, Ont.
Scrivener, Robert M.	Hay, N.S.W., Australia.
‡Seath, J. Marshall	Montreal.
‡Shanly, Coote N.	Montreal.
‡Skelton, Philip H.	Montreal.
Smith, William P.	Montreal.
Staveley, Walter D.	Montreal.
‡Stevenson, Edward P.	London, Eng.
Thompson, Norman A.	Coaticook, P.Q.
Turner, William H.	Ottawa, Ont.
Walcott, William H.	St. Michael, Barbadoes.
Walker, G. H. Pearson	Saskatoon, Sask.
Watson, Hugh M.	Montreal.
Webb, Edward M.	Montreal.
*White, Albert H.	Ottawa, Ont.
White, J. Gordon	Woodstock, Ont.
Willis, Frank S.	Westmount.
Willis, George C.	Toronto, Ont.
Wilson, R. Starr L.	Lunenburg, N.S.
‖Wilson, T. Edgar	Langley, B.C.
Wood, Douglas F.	Westmount.
*(3)Wood, Harold W.	Montreal.
*(3)Wood, J. Russell	Peterborough, Ont.
‡Woodyatt, Charles F. K.	Brantford, Ont.

THIRD YEAR.

Adrian, Robert W.	St. John's, Nfld.
‡Alford, J. Newton	Belleville, Ont.
‡Anderson, Goldie F.	Vancouver, B.C.
Archibald, Max S. E.	Truro, N.S.
Ayer, Kenneth R.	Montreal.
‡Bambrick, Heber	Vancouver, B.C.
*(4)Bayly, George W.	Montreal.
Beagley, Thomas G.	Montreal.
Bennet, G. Arthur	New Glasgow, Que.
Binks, Norbert T.	Ottawa, Ont.
Blackett, V. St. Clair	Glace Bay, N.S.
Blanchard, E. Stirling (Arch.)	Charlottetown, P.E.I.
‡Boright, G. Kenric, B.A (Bishop's)	Montreal.
Brown, Osburn N.	Newcastle, N.B.
‡Brunton, J. Stopford L.	London, Eng.
Burland, G. Lewis	Ottawa, Ont.
‡Buttenshaw, Alfred S.	St. Albans, Eng.
‡Callander, Delmer W.	Guelph, Ont.
*Chappell, Frank	Cardiff, Wales
Clark, Albert W. G.	Valleyfield, P.Q.
Cloran, J. Harry D.	Westmount.
Cole, F. Thornton	Montreal.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

*Partial Student. ‡Conditioned Undergraduate. ‖Double Course Student.

NAME.	HOME ADDRESS.
‡Colter, Ashley A.	Keswick, N.B.
*(4)Cook, Archibald S.	Quebec, P.Q.
Cowles, Eugene P.	Montreal.
Cowley, A. Thomas N.	Winnipeg, Man.
Cox, John R.	Montreal.
*Cummins, Philip M.	Magog, P.Q.
‡Dakin, Frederick W.	Westmount.
Daubney, Charles B.	Ottawa, Ont.
Daubney, James E.	Ottawa, Ont.
Dawes, Andrew S.	Montreal.
de Hart, Joseph B.	London, Eng.
*(4)del Castello, L. Drake.	Paris, France.
Dennis, T. Clinton.	O'Leary Station, P.E.I.
‡Derrom, Donald L.	Montreal.
Dobson, Arthur A.	Fordwich, Ont.
‡Donald, Edward D.	Westmount.
Dowie, Kenneth W.	Westmount.
‡Duguid, A. Fortescue.	Aberdeen, Scotland.
*Durant, Reginald W.	Montreal.
Echenberg, A. David.	Sherbrooke, P.Q.
*(4)Ekers, H. Austin.	Montreal.
‡Elkins, Robert H. B.	East Orange, N.J.
Ewart, Douglas M.	Ottawa South, Ont.
Farnsworth, C. Albert.	Sawyerville, P.Q.
Ferrier, Tyrrell.	Chatham, Eng.
Fisher, Seymour J.	Burlington, N.S.
Fowler, F. Scott.	Winnipeg, Man.
‡Fox, Charles A.	Coaticook, P.Q.
Fregeau, John H.	Three Rivers, P.Q.
‡Frith, G. Harry	Cumming's Bridge, Ont.
‡Gibbins, Gwynn G.	Vancouver, B.C.
Gilchrist, T. Ernest.	Ottawa, Ont.
‡Gill, Peter C.	Victoria, B.C.
*(4)Gilmour, Hamilton L.	Ottawa, Ont.
‡Gladman, Victor L.	Lindsay, Ont.
Goodstone, A. Simon.	Montreal.
*Graves, Frank W.	Aylesford, N.S.
‡Hanson, William G.	Montreal.
Harris, Norman G.	Melbourne, Australia.
Hattie, James B.	Caledonia, N.S.
‡Haultain, Alexander G.	Montreal.
Hollinsed, Richard E. L.	St. John's, Barbados.
Hudson, George M.	Montreal.
Hughes, George G.	Charlottetown, P.E.I.
‡Jackson, Donald A.	Montreal.
Jost, Leslie G.	Guysboro, N.S.
Kingston, John L. (Arch.)	Ottawa, Ont.
*Knewstubb, Frederick W.	Port Arthur, Ont.
Kohl, George H.	Montreal.
*(4)LaForest, Guy B.	Montreal.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

*Partial Student. ‡Conditioned Undergraduate.

NAME	HOME ADDRESS.
‡Little, Harold R.	London, Ont.
‡Lomer, Gerald B	Pointe Claire, P.Q.
MacAfee, Ralph E.	Millstream, N.B.
MacDiarmid, Archibald A	Covey Hill, Que.
Macdonald, J. Harrison	Claresholm, Alta.
Macdonald, Jeremiah J.	Vernon River, P.E.I.
‡Macfarlane, R. George	Huntingdon, P.Q.
McHenry, Morris J.	London, Ont.
‡MacKay, Edward	Montreal.
MacLean, Calvin S.	St. John, N.B.
‡McLeod, John W.	Scotsburn, N.S.
McNab, Lewis G.	Montreal.
McNaughton, Andrew G.	Moosomin, Sask.
‡Macrae, John M.	Golden, B.C.
Magrath, C. Bolton	Lethbridge, Alta.
Malloch, Francis G.	Hamilton, Ont.
‡Maltby, Quintin J.	Midland, Ont.
‡Mauer, Eli	Montreal.
Meek, Victor M.	Port Stanley, Ont.
Menzies, John W.	Ottawa, Ont.
Nares, Basil L.	Winnipeg, Man.
Narraway, Athos M.	Ottawa, Ont.
Needham, Robert J.	London, Ont.
Paine, A. J. Carman (Arch.)	Lower Island Cove, Nfld
‡Paulsen, Hans K.	Copenhagen, Denmark.
Payne, Sydney C. (Arch.)	Ottawa, Ont.
Pearce, Seabury K.	Calgary, Alta.
‡Penney, Edgar	Carbonear, Nfld.
‡Popham, J. F. Watson	London, Eng.
‡Powis, Gordon D.	Hamilton, Ont.
Price, Thomas E.	Vancouver, B.C.
‡Raymond, William W	St. John, .NB.
‡Reid, A. Cumberland	Winnipeg, Man.
Reid, Rupert H.	Sault St. Marie, Ont
‡Robertson, Edgar D.	Ottawa, Ont.
*Robertson, Harry A.	Winnipeg, Man.
‡Robertson, W. Scott	Notre Dame de Grace, P.Q
‡Ross, Allan C.	Ottawa, Ont.
‡Rutherford, John R.	Pictou, N.S.
‡Ryley, A. St. Clair	Ottawa. Ont,
‡Sanderson, Charles W.	St. Albans, Eng.
‡Scott, Oswald H.	Toronto, Ont.
‡Scott, Robert W.	Queenstown, S. Africa.
*(4)Sharing, Arthur E.	Montreal.
‡Simpson, Alan C.	Montreal.
*(4)Slingsby, Henry.	Thorpe Underwood Hall, Eng.
Small, Frank S.	Collina, N.B.
Smith, Albert W.	Coverdale, N.B.
*Soule, Charles E.	St. Albans, Vt.
Sproule, Stanley M.	Montreal.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

*Partial Student. ‡Conditioned Undergraduate.

NAME.	HOME ADDRESS.
‡Stackhouse, Charles W	Moncton, N.B.
‡Stark, Robert	Montreal.
‡Stevenson, George	Danville, P.Q.
Stewart, Robert B	Strath Gartney, P.E.I.
Strong, Horace R. F	Cambria, P.Q.
‡Stuart, Alexander G	Buckingham, P.Q.
‡Tanner, Henry E	Joliette, P.Q.
‡Timberlake, John N	Montreal.
Townshend, C. Stuart	Halifax, N.S.
*Trench, A. S. Chenevix	Camberley, Surrey, Eng.
Vinet, Eugène	Montreal.
von Pozer, Charles H	St. George East, P.Q.
Vroom, Harold H	St. Stephen, N.B.
*Walker, Joliffe	Montreal.
‡White, Marven	Wheatley, Ont.
Williams, F. G. Maxwell	Bath, Eng.
Williamson, W. Reginald	Owen Sound, Ont.
Wyman, John K	Rockland, Ont.
‡Young, Alexander A	Selkirk, Man.
‡Young, William L	Millsville, N.S.
Younger, Harry R	Ottawa, Ont.

FOURTH YEAR.

‡Allen, Leslie W	Haywards, Cal.
‡Anderson, Sedley C	Halifax, N.S.
*Archibald, E. M. Brenton	Halifax, N.S.
‡Babson, George L	Seward, Neb.
Baillie, Archie F	Montreal.
‡Baylis, Harold A	Montreal.
‡Boyd, G. Mossom	Bobcaygeon, Ont.
‡Bradshaw, Walter E	Moncton, N.B.
Briegel, Walter O.	Montreal.
Briggs, Arthur F. M	St. Catharines, Ont.
‡Bronson, Frederic E	Ottawa, Ont.
*Brown, Lindsay O	Metcalfe, Ont.
Brunton, Frederic K	Denver, Col.
Burbidge, George H., B.A. (Toronto)	Ottawa, Ont.
‡Byrne, John H	Ottawa, Ont.
Cantley, Charles L	New Glasgow, N.S.
‡Cate, Carroll	Sherbrooke, P.Q.
Cheesbrough, A. Gordon	Westmount.
‡Conway, Edmund J	Ladysmith, B.C.
Coulin, Louis A	Montreal.
Davies, Harold C., B.Sc	Hull, P.Q.
Dawson, Frederick J	Truro, N.S.
DeLancey, James A	Middleton, N.S.
Dennis, W. Melbern	O'Leary, P.E.I.
‡Descarries, Joseph A., B.A	Lachine, P.Q.
Dickieson, Arthur L	Ottawa, Ont.
Dickson, Garnet H	Westmount.
‡Dion, A. Hector	Ottawa, Ont.
Dowswell, Harry R. (Arch.)	Dutton, Ont.

*Partial Student. ‡Conditioned Undergraduate,

NAME.	HOME ADDRESS.
Drysdale, Charles W.	Montreal.
Dwight, Herbert B.	Picton, Ont
Eakins, James M.	Toronto, Ont.
Edwards, Godfrey B.	Ashleworth, Eng.
Fetherstonhaugh, Harold L. (Arch.)	Montreal.
‡Fetterly, Philip A.	Aultsville, Ont.
*Fitzgerald, Charles B. P.	Middleton, Ireland.
Ford, Walter S.	Winnipeg, Man.
Fox, C. Harry.	Winnipeg, Man.
Fraser, Archibald N.	Coaticook, P.Q.
Galbraith, William J.	Cap Rouge, P.Q.
‡Gall, Douglas M.	Lachute, P.Q.
Gillies, George A., B.Sc.	Carleton Place, Ont
‡Gillis, Hugh B.	Sydney, N.S.
Gomes, Lawrence F.	St. John's, B.W.I.
‡Goodchild, Ralph H.	St. Lambert, P.Q.
Goode, John D.	Westmount.
‡Graham, Harold M.	New Glasgow, N.S.
‡Grahame, Dallas F.	Montreal.
Green, Harold P	Oak Leaf, Ont.
Grove, Humphrey S	London, Eng.
Hague, Owen C. F	Montreal.
‡Heywood, Edward P.	New York, N. Y
Hilborn, Percy R.	Berlin, Ont.
‡Irwin, John W. (Arch.)	Montreal.
Johnston, Harold S.	Gananoque, Ont.
Kennedy, W. Alan	Vancouver, B. C.
Ker, Frederick I.	Montreal.
‡Landry, Wilfred A	Dorchester, N. B.
Layton, Shirley T	New Glasgow, N. S.
‡Letourneau, Marius	Montreal
Lindsay, Alexander M.	Invercargill, N. Z.
‡Lumsden, Hugh A	Ottawa, Ont.
Lundy, T. H. D.	Brantford, Ont.
McDougall, J. Cecil	Montreal.
*MacKay, George W	New Glasgow, N S.
‡McKinnon, John A	Montreal.
McKinnon, Kenneth R	New Glasgow, N. S.
McKnight, William F.	Douglastown, N. B.
McLean, Douglas L.	Ottawa, Ont.
‡Manny, David E	Beauharnois, P. Q.
‡Maver, Alexander M.	Montreal.
Montague, T. Mortimer	Galt, Ont.
Mooney, Harry V	Stardale, Ont.
‡Morison, Hugh G.	Ormstown, P. Q
Mulock, Redford H.	Winnipeg, Man.
Murphy, A. A., B. Sc. (Queen's)	Portland, Ont.
‡Nairn, John S	Truro, N. S
O'Neill, John J	Port Colborne, Ont.
‡Poissant, Onesime E.	Montreal.
Powell, William H	Little Harbour, N. S.
Renaud, Bruce G	Montreal.
Richardson, Charles E	St. Mary's, Ont.

*Partial Student. ‡Conditioned Undergraduate.

Name.	Home Address.
‡Rider, Ezra B	Fitch Bay, P. Q.
Robb, Charles A	Amherst, N. S.
‡Robertson, Gilbert	Brantford, Ont.
‡Ross, Charles C.	Hintonburgh, Ont.
Russell, Benjamin	Halifax, N. S.
Ryan, Frederic G.	Montreal.
Sailman, Robert T. H	Malvern, Jamaica.
Saunders, Charles W. M.	Kingston, Jamaica.
*Seely, Roy A	St. John, N. B.
‡Slavin, Reginald, V.	Deseronto, Ont.
Smith, George W	Montreal,
Smith, Stanley M.	St. John, N. B .
Soper, Arthur J.	Brockville, Ont.
Spencer, Walter H., B. Sc.	Montreal.
Stansfield, Maurice	Blackburn, Eng.
Stewart, Leighton.	Summerside, P. E. I.
‡Sutherland, Luther, H. D.	Montreal.
*Thorne, Harvey	Dartmouth, N. S.
Trotter, Clifford T.	St. Johns, P. Q.
*Vessot, Ernest S.	Joliette, P. Q
*Whitcher, Wilfred C. W.	Ottawa, Ont.
Wilson Alexander	Montreal.
‡Winslow, Rainsford H	Fredericton, N. B.
‡Wisdom, Stuart.	Montreal.
Yuill, Harry H.	Truro, N. S.

FACULTY OF MEDICINE.

First Year.

Name.	Home Address.	Where Last Educated
†Astrofsky, Samuel	Montreal.	Montreal High School.
Atkinson, J. Hedley	Mansfield, Ohio	U. P. S., Ithaca, N. Y.
Baird, Frederick S	Bay, City, Mich.	University of Michigan.
†Bannerman, Percy D	Victoria, B. C.	Victoria College.
Beaton, Malcolm	Moose Creek, Ont.	Queen's University.
†Beaudry, Joseph H	Bridgeport, Conn.	Bridgeport High School.
†Bilodeau, Joseph P	New Westminster, B. C.	
†Boyce, William E.	Rawdon, P. Q.	Lachute Academy.
†Brown, Norman	Surrey Centre, B. C	Private Tuition.
‖Bruneau, I. Edgar	Montreal	Montreal High School.
Busteed, Daniel F.	Vancouver, B. C	McGill Univ. Coll. of B. C.
Cheney, Hill H.	Monticello, Maine.	
†Clark, Lewis E.	Vancouver, B. C.	Vancouver High School.
Crowdy, Charles T	St. John's, Nfld.	Frawlingham College, Eng.
Cumming, Herbert E	Russel, Ont.	Vankleek Hill Collegiate.
Cumming, John.	South Gower, Ont.	Kemptville High School.
†Daw, William F.	Bay Roberts, Nfld.	Bishop Field Coll., St. John's
DeGarmo, Philip W	Kingston, N. Y.	Kingston Academy.
Delahey, Allan L.	Pembroke, Ont.	Pembroke High School.
Delahey, Wallace A.	Pembroke, Ont.	Pembroke High School.
de Lotbiniere, Alain J	Quebec, P. Q.	Bishop's College.
‖Digby, Reginald W.	Brantford, Ont	

*Partial Student. ‡Conditioned Undergraduate.
†Conditioned Student. ‖Double Course Student.

NAME	HOME ADDRESS	WHERE LAST EDUCATED.
‖Douglas, H. Townley	Montreal.	
Downing, George F	Rougemont, P. Q	Bishop's College.
Forbes, C. Alexander	Bonavista, Nfld.	St. John's, Nfld.
†Fotheringham, Carl K,	Peterboro, Ont	Millbrook High School, Ont.
Gallagher, Joseph F	Bangor, Maine	Bangor High School.
‖Gardiner, Egbert J	London, Ont.	
Geldert, George M	Windsor, N. S.	King's College, Windsor.
Gibson, J. Irvine	Kemptville, Ont.	Cornwall High School.
Gold, Maxwell (Dent.)	Montreal	Shortell's Academy.
Gowdy, William C	St. Michael, B'dos.	Harrison Coll., Barbados.
Grant, James F	Cumberland, B.C.	Cumberland High School
Grundy, Gordon M	Long Beach, Cal.	University of California.
†Haslett, James U	Richmond, P.Q.	French Methodist Institute
†Henderson, Arthur T	Brown's Town, Jamaica.	N.Y. Preparatory Sc.
†Hutton, Willis A	Lachine, P.Q.	Sherbrooke Academy.
James, Charles H. J	Toronto, Ont.	Ridley Coll., St. Catharines.
Jones, A. Llewelyn	Victoria, B.C.	Epsom College, Eng.
Jones, Norman L	Kemptville, Ont.	Kemptville High School.
Keith, Claude H	New Glasgow, N.S.	
Kennedy, George L. D	Ottawa, Ont	Ottawa Collegiate Inst.
†Kirkland, A. Stanley	New Westminster, B.C.	New Westminster, H.S.
*Kirsch, Simon, M.Sc.	Montreal	
‖Kolber, Joseph	Montreal	
†Krolik, Melville, Z	Winnipeg, Man.	Winnipeg Collegiate Inst.
†Levine, Edgar C	Montreal	
Lightstone, Bernard (Dent.)	Montreal	Catholic High School.
†McCloskey, John C	Chesterville, Ont.	Morrisburg Collegiate.
*McCone, Edward E. (Dent.)	Windsor Mills, Que.	Private Tuition.
McCormack, Andrew C	Renfrew, Ont.	Renfrew Collegiate Inst.
†MacDermot, Hugh E	Gordon Town, Jamaica.	Private Tuition.
McIntyre, George D	Avonmore, Ont.	Cornwall High School.
†Mackay, Albert A	Montreal	Shortell's Academy.
McLean, William J	Perth, Ont.	Perth Collegiate Inst.
Macleod, Donald A	Kirk Hill, Ont.	Private Tuition.
Malloch, Thomas A., B.A. (Queen's),	Hamilton, Ont.	Queen's University.
*Matthews, Stephen C.	Montreal.	
Meeker, Jay E	Malone, N.Y.	Franklin Academy.
†Melhado, Gerald C	Old Harbour, Jamaica.	Potsdam School.
Mooney, Joseph B., B.A.,	St. John, N.B.	St. Francis Xavier College.
Morris, Wesley G	Regina, Sask.	Prince of Wales College.
Munroe, Finlay	Maxville, Ont.	Alexandria High School.
Munroe, James G	Woodstock, Ont.	Woodstock Collegiate Inst
Murphy, Edward V.	Fall River, Mass.	Holy Cross College, Mass.
Nase, Philip, B.A. (Mt. Allison).	St. John, N.B.	University of Mt. Allison.
O'Donnell, John E	Fort William, Ont.	Ft. William High School.
Parker, Frederick D	Wolfville, N.S.	Acadia University.
Pelletier, Albert	Montreal	St. John's School.
Perreault, William J	Ottawa, Ont	Ottawa University.
†Phelan, George W	Ash Point, Maine.	Maine Wesleyan Seminary
Phillips, J. Gordon	Forest, Ont.	Watford High School, Ont.
Purdy, Walter T., B.A.	Amherst, N.S.	Mt. Allison University.
‖Ramsay, Irving D	Waskada, Man.	
Ramsey, G. Stuart, B.A.	Quebec, P.Q.	

*Partial Student. †Conditioned Student. ‖Double Course Student.

Name	Home Address.	Where Last Educated.
Reeves, Charles W.	Atlanta, Ga.	Atlanta University.
†Robertson, Russell B.	Vancouver, B.C.	Vancouver College.
Robson, Charles H.	New Westminster, B.C.	Columbian College.
‖Ross, S. Graham.	Dundas, Ont.	
Scott, W. Clifford M.	Ottawa, Ont.	Ottawa Collegiate Inst.
†Segal, Jake.	Montreal.	Hunter's Academy.
*Ship, Abe P.	Montreal	
Smith, J. Arthur.	New Westminster, B.C.	Columbian College.
Stewart, Robert C., B.Sc.	Quebec, P.Q.	
Strang, Allan M. (Dent.).	Quebec, P. Q.	Private Tuition.
Thompson, Allen Edgar.	Coaticook, P.Q.	
†Wade, Herbert W.	Millis, Mass.	Y.M.C.A., Montreal.
Wall, James T	Cumberland, B.C.	McGill Univ. Coll. of B.C.
*Waterson, Douglas.	Montreal	
Williams, William E.	Mt. Pleasant, P.E.I.	St. Dunstan's College.

Second Year.

Name	Home Address.
Bancroft, Aubrey G.	Bridgetown, Barbados.
Beck, Sem G.	Hecktown, Pa.
Bourne, Charles R.	Atlin, B.C.
Briggs, Tillman A	Victoria, B.C.
†Brown, Samuel.	Hallville, Ont.
†Burrows, Garfield C.	Guelph, Ont.
‖Canegata, David C.	Christiansted, D.W.I.
‖Clouston, Howard R.	Huntingdon, P.Q.
Crombie, D. W.	London, Ont.
Davies, Andrew P.	Hull, P.Q.
Derby, Leonard L.	Plantagenet, Ont.
Derome, H. Rupert, B.A. (Laval).	St. Chrysostome, P.Q.
Draper, F. Erle.	Montreal.
Dyas, A. Douglas.	Parrsboro, N.S.
Ewert, Paul, B.A. (Oberlin).	Gretna, Man.
Falardeau, Adelard.	Hull, P.Q.
Falconer, Ernest H.	Prentice, Wis.
Foster, Arthur N.	Providence, R.I.
Freeze, David F. D.	Sussex, N.B.
Furlong, Harry G.	Norwich, Ont.
‖Geggie, Harold J.. G.	Beauport, P.Q.
Glickman, Abraham (Dent.).	Montreal.
‖Gliddon, W. Osborn.	Ottawa, Ont.
Gregory, Fred L.	Fairfield, Maine.
Harrison, John.	Georgetown, B.Guiana.
Hartley, James K.	Montreal.
Hebert, Albert J.	Shawinigan Falls, P.Q.
Hickson, Charles R., B.A. (Mt. Allison).	St. John, N.B.
Houle, Lester G.	Charlottetown, P.E.I.
Johnson, Francis A.	Waterbury, Conn.
Kennedy, Frederick W. (Dent.).	Montreal.
Legault, J. Horace.	Ottawa, Ont.
Lewis, D. Sclater, M.Sc.	Montreal.

*Partial Student. †Conditioned Student. ‖Double Course Student.

Name	Home Address.
McCarthy, John	St. John, N. B.
McCready, Charles H	Allentown, Pa.
MacDonald, Dalraddy L, B. A.	Montreal.
McGibbon, Roy H	Montreal.
McGibbon, Walter J.	Chateauguay, N. Y.
MacHaffie, Lloyd P.	Cornwall, Ont.
McKay, Frederick H.	Mt. Stewart, P. E. I.
McKim, Laurie H	Wallace Bridge, N. S.
Macleod, James S.	Charlottetown, P. E. I.
McNulty, Lloyd T	Norwood, N. Y.
MacNutt, Louis W.	Charlottetown, P. E. I.
Malone, Reginald H.	St. John's. B. W. I.
‖Mavety, J. LeRoy	Ottawa, Ont.
Mulcahy, William E.	Holyoke, Mass.
Mulloy, Patrick G.	Inkerman, Ont.
Oulton, John R., B.A.	Lorneville, N. S.
Planche, H. Howard	Cookshire, P. Q.
Robert, Harold R.	Au Sable Forks, N. Y.
Roberts, M. Chesley	Brigus, Nfld.
Rosenbaum, J. Jack	Montreal .
†Scobie, Thomas J	Kars, Ont.
‖Shannon, W. Lloyd	Vancouver, B. C.
Smith, Charles H. V.	Cote St. Paul, P. Q.
Steeves, Harold C., B.A.	Hillsboro, N. B.
Stewart, John D	Calgary, Alta.
†Stewart, John W.	Hampstead, Ont.
Stone, W. Ross	Vancouver, B. C.
Sutherland, Thomas W.	Saskatoon, Sask.
Swaine, Frederick S., B.A. (Mt. Allison).	North East Harbor, N.S.
Taylor, S. Wesley	Montreal.
*(3) Tracy, R. Archer, M. D.	Trinidad, B. W. I.
Vigneux, Maurice J.	Nelson, B. C.
Walcott, Edward J. O'N	Christ Church, Barbados.
*Wallace, Hugh C.	Acton, Ont.
Walter, Arthur B.	Salt Spring Is., B.C.
Webster, Alex. V	Marie, P. E. I.
Wheeler, Ralph de F., B.A.	Montreal.

Third Year.

Adcock, John P.	Weymouth, Eng.
Allen, Kenneth W.	St. John, N. B.
Allingham, John H., B.A. (N.B.)	St. John, N. B.
Amant, Harry	Chandlerville, Ill.
Aronson, Aaron M. (Dent).	Montreal.
Bauld, William A. G., B.A. (Dal.)	Halifax, N. S.
Benner, Frank A.	Bayham, Ont.
Black, Vaughan E., B. A. (Mt. Allison)	Amherst, N. S.
Bleasdell, William A.	Fernie, B. C
Booth, Gordon E	Ottawa, Ont.
Boudreau, Frank G	Quebec.
Bourne, Wesley.	Pollards, Barbados.
Brown, David M.	Motherwell, Scotland.

* Partial Student. †Conditioned Student. ‖ Double Course Student.

NAME.	HOME ADDRESS.
Burton, William E.	Bridgetown, Barbados.
Campbell, Archibald D	Glencoe, Ont.
Campbell, Harold A	Sherbrooke, P. Q.
Carnell, Arthur H	St. John's, Nfld.
Carruthers, Robert S. P	North Bedeque, P. E. I
Champion, Benjamin H.	Summerside, P. E. I.
Chisholm, Hugh G., B.A. (St. Francis Xavier).	Antigonish, N. S.
Clarke, T, L. Evelyn	Stratton, Barbados.
Crawford, John W	Courtenay, B. C
Crease, Arthur L.	Nelson, B. C.
Culver, Cyrus W.	Harrisville, N.Y.
Dakin, Warren A., M. A. (Mt, Allison).	Pugwash, N. S.
Doyle, Philip E.	Hawkesbury, Ont.
Dunbar, David A.	Alma, P. E. I.
Elliott, Robert, B. A.	East Clifton, P. Q.
Ewert, Carl.	Gretna, Man.
Fraser, John R.	Lakefield, Ont.
Fraser, Wilbert G	Pembroke, Ont.
Froomess, Leo E.	Montreal.
Furness, Arthur W	Vernon River Bridge, P.E.I
Gallagher, Joseph B., B.A.	Bath, N. B.
Gillis, Stephen H.	Indian River, P. E. I.
Guilfoyle, Vincent G.	Waterbury, Conn.
Hamilton, C. Dickinson	Cornwall, Ont.
Harry, A. Cecil.	Montreal.
Havey, Harry B., B.A. (Acadia)	Digby, N. S.
Hawkins, Allan B	St. Michael, Barbados.
Hepburn, Howard H.	Edmonton, Alta.
Hepburn, William G.	Stratford, Ont.
Herbert, Thomas A	Bridgetown, Barbados.
Hicks, Elbert R., B.A. (Mt. Allison)	Upper Dorchester, N. B.
Hutchison, George W.	Escott, Ont.
Irven, John J.	Alexandria, Ont.
Kaine, William J., B.A. (Laval).	Brattleboro, Vt.
Kearney, Garnet H.	Renfrew, Ont.
Keay, Arnold	New Glasgow, N. S.
Lavers, Percy L	Georgetown, P. E. I.
Locke, J. Allen.	Irena, Ont.
Lockwood, Ambrose L.	Westport, Ont.
Logie, H. Burton, B.A., (N.B.)	Chatham, N. B.
McAlister, William J	Winnipeg, Man.
Macaulay, Albert E	St. John, N. B.
McBurney, Albert, B. A	Sawyerville, P. Q.
McCracken, William A.	Cornwall, Ont.
McDonell, Donald S. H. (Dent)	Alexandria, Ont.
McEachern, Malcolm T.	Fenelon Falls, Ont.
Mackintosh, Arthur E.	Pugwash, N. S.
MacMillan, Hugh	Vancouver, B. C.
Macmillan, Stanley.	Isaac's Harbor, N. S.
McMillan, W. Herbert.	Brockville, Ont.
McNaughton, Murray W. A	Moosomin, Sask.
Macneill, Alvin L. H.	Fishkill-on-the-Hudson, N.Y
MacPhee, John A., B.A. (Laval).	Charlottetown, P. E. I.
Malcolm, Robert B.	St. John, N.B.
Marchant, Harold B	Victoria, B. C.

NAME.	HOME ADDRESS.
Marcuse, Otto, B.A.	Westmount.
Moodie, A. Russell	Perth, Ont.
Morse, D. Garnet	Lawrencetown, N.S.
Mundie, Gordon S., B.A.	Westmount.
O'Brien, John F.	Fall River, Mass.
O'Callaghan, Robert H. L.	East Sheen, Surrey, Eng.
Park, John E.	New Glasgow, N. S.
Peabody, Harry S.	Mansonville, P. Q.
Peele, Sidney B.	New Westminster, B. C.
Piper, John O., A.B. (Bates)	Bingham, Maine.
*Raftery, Charles R	Montreal.
Raphael, Howard M.	Ottawa, Ont.
Reed, Everett H	Whitman, Mass.
Richardson, J. Wilson	Mountain, Ont.
Robinson, George	Concord, N. H.
Robinson, Thomas A.	St. Mary's, Ont.
Scott, George O.	Ottawa, Ont.
Shephard, Harold M	London, Ont.
Sihler, George A.	Litchfield, Ill.
Sinclair, Fred D., B.A.	Montreal.
Speer, Robert B	Danville, P. Q.
Stewart, Archibald	South Indian, Ont.
Strudwick, Henry T	Duncans, Jamaica.
Walker, Edmund E. W.	Hamilton, Bermuda
Wilson, George T., B.A.	Vancouver. B. C.
Youland, William E., B.A. (Bowdoin)	Biddeford, Me.

FOURTH YEAR.

Allen, J. A. Lorne	Hallville, Ont.
Anderson, William M	Midgic, N. B.
Archibald, David W.	North Sydney, N. S.
Atkinson, Paul McL	Albert, N. B.
Auld, Frederick M., B.A.	Cove Head, P. E. I.
Bailey, Cameron V	New Glasgow, N. S.
Baldwin, William J., B.A. (Holy Cross Coll'ge)	Ogdensburg, N. Y.
Ballon, David H., B.A.	Montreal.
Benoit, Hector W	Ottawa, Ont.
Bramley-Moore, Alfred	London, Eng.
Bugbee, Raymond G.	N. Attleboro, Mass.
Cameron, John R.	Charlottetown, P. E. I.
Carney, Michael J., B.A. (Dalhousie)	Halifax, N. S.
Carrington, Everard A. S., M.D.	St. Lucy, Barbados.
Churchill, Lewis P	Dartmouth, N. S.
Clarke, James C., B.A. (Laval)	Nelson, B. C.
Cody, Harry C.	Centreville, N. B.
Conn, Leighton C.	St. Catharines, Ont.
Cotton, Thomas F., B.A.	Cowansville, P. Q.
Cox, Charles G.	Hull, P. Q.
Craig, Hector M	Kenmore, Ont.
Cron, Charles	Harbor Grace, Nfld.
Cross, C. Ernest, B.A.	Montreal.
Curry, Wilfred A., B.A. (Dalhousie)	Halifax, N. S.

*Partial Student.

NAME.	HOME ADDRESS.
D'Avignon, F, Joseph	Au Sable Forks, N. Y.
Davis, Daniel W.	Brockville, Ont.
DeWitt, Avery E., B.A., (Acadia)	Wolfville, N. S.
Donahue, Hugh F.	Leominster, Mass.
Dorsey, Joseph W.	Charlottetown, P. E. I.
Drury, W. Herbert	Barrie, Ont.
Dunlop, Frederick T.	St. John, N. B.
Dunnet, Henry W.	Ottawa, Ont.
Ewing, William T	Montreal.
Fairie, James A.	Montreal.
Foster, Lowell S	Providence, R. I.
Fraser, Maxwell J	Stratford, Ont.
Funk, Edwin H.	Rossland, B. C.
Gillis, John J., B.A. (St. Dunstan's)	Miscouche, P. E. I.
Graves, C. Allan	Tillsonburg, Ont.
Greenleese, J. Carey	Ottawa, Ont.
Hale, G. Carleton.	London, Ont.
Hand, William T.	Montreal.
Hawkshaw, Edward P., (Dent).	Chilliwack, B. C.
Kelly, Clement M., B.A., (N. B.).	Fredericton, N. B.
Lannin, J. C. Justin	South Mountain, Ont.
Lawrence, Watson A.	Lisbon, N. Y.
Lawson, George C.	Charlottetown, P. E. I.
Leys, W. Murray	Brantford, Ont.
Lindsay, Lionel M.	Montreal.
McBride, Walter P	Central Bedeque, P. E. I.
McCallum, John S., B.A.	Smith's Falls, Ont.
McEwen, Stanley C	Vancouver, B. C.
Maclean, Charles G. G.	Victoria, B. C.
Manning, Gerald M.	Bridgetown, Barbados.
Miller, Robert L.	Montreal.
Murray, Joseph M.	Marmora, Ont.
Ower, John J., B.A.	Smith's Falls, Ont.
Palmer, John E., B.A. (N.B.).	Hampton, N.B.
Paterson, John H.	Almonte, Ont.
Patton, William D.	Vancouver, B.C.
Read, Edward Samuel, B.A. (Bishop's),	St. Felix de Valois, P.Q.
Richardson, Robert W., B.A. (Dartmouth).	Lisbon, N.H.
Scott, John B.	Hull, P.Q.
Sharp, Claude E.	Spanish Town, Jamaica.
Shillington, Richard N. W.	City View, Ont.
Smith, Bruce S.	Boston, Mass.
Sparks, John J.	St. John's, Nfld.
Stewart, Alexander	Ormond, Ont.
Tannenbaum, David, B.A.	Montreal.
Taylor, Thomas H.	Cumberland Mills, P.Q.
Thomson, J. Oscar	Montreal.
Turnbull, Frederick M.	Bear River, N.S.
Turner, John S.	Spanish Town, Jamaica.
Underhill, Thomas B.	Weyburn, Sask.
Wallace, Irwin	Belleville, Ont.
Walsh, James J	Woburn, Mass.
Walsh, John B., B.A. (Laval).	Quebec, P.Q.
Worley, Ernest G.	Haley's Station, Ont.

COURSE FOR DIPLOMA OF PUBLIC HEALTH.

NAME.	HOME ADDRESS.
Rankin, Allan C., M.D.	Montreal.
Sparks, John J.	St. John's, Nfld.
Tull, John A. C., M.D.	St. John's, B.W.I.

FACULTY OF LAW.

FIRST YEAR.

NAME.	HOME ADDRESS.
‖Archibald, Kenneth	Montreal.
Burnett, Ralph	Montreal.
*(2)Crabtree, Harold	Joliette, P.Q.
Creswell, Harris J., B.A.	Lachute, P.Q.
Feiczewicz, Louis, B.A.	Quebec, P.Q.
Fisher, William C.	Gainsborough, Sask.
‖Fleet, C. A. Robertson	Montreal.
*Goldenberg, Bernard	Montreal.
Hastings, W. Roy, B.A.	Montreal.
Macdonald, James, M.A. (Queen's)	Glen Donald, Ont.
Merrill, Walter A., B.A. (Laval)	Montreal.
Montle, John M.	Stanstead, P.Q.
*Nicholson, Demetrius	Montreal.
Owens, T. Sargent, B. A. (Laval)	Montreal.
Shanks, Walter R. L., B.A.	Fitchburg, Mass.
Stockwell, Ralph F., B.A.	Danville, P.Q.
Walsh, Joseph C. B., B.A.	Montreal.
Waterston, Edward J., B.A.	Westmount.

SECOND YEAR.

Alexander, Maurice	Montreal.
Belanger, George, B.A. (Laval)	Montreal.
Cameron, Alexander G.	Winchester, Ont.
Cousins, George V., B.A.	Westmount.
Cushing, Dougall, B.A.	Montreal.
Goodstone, Isidore A.	Montreal.
Heward, Chilion G., B. A.	Montreal.
*Jacobs, Lyon	Montreal.
Jamieson, John S., M.A.	Clyde, Ont.
Lamert, Joseph O.	Montreal.
McCallum, Orick B., B.A.	Montreal.
Morey, Guy M., B.A.	E. Farnham, P.Q.
Papineau, Talbot M., B.A.	Montreal.
Penny, E. Goff T., B.A.	Montreal.
Tetreau, Maurice F.	Montreal.
Tulk, A. Edward	Vancouver, B.C.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

*Partial Student. ‖Double Course Student.

THIRD YEAR.

NAME.	HOME ADDRESS.
Barclay, Gregor, B.A.	Montreal.
deLorimier, Jules	Montreal.
Dutaud, Gustave, B.A.	Montreal.
Gibb, Robertson W., B.A.	Westmount.
Hackett, John T., B.L. (Laval)	Stanstead, P.Q.
Hing, Peter	Victoria, B.C.
Mathieu, L. J. Armand	Montreal.
Savard, Alfred	Quebec, P.Q.

THE GRADUATE SCHOOL.

PROCEEDING TO THE DEGREE OF MASTER OF ARTS.

NAME.	HOME ADDRESS.
Almond, John M.	Montreal.
Brooks, Murray G., B.A.	Indian Head, Sask.
Brown, W. Gordon, B.A., B.Sc.	Montreal.
Call, Frank O., B.A. (Bishop's)	West Brome, P.Q.
Corse, Elton L., B.A., (Dartmouth)	Alburgh, Vt.
Eaton, Mary Judson, B.A.,	Westmount.
Gray, Edwin H., B.A.	Montreal West.
Halpenny, W. T.	Montreal.
Harrison, Ralph D., B.A.	Montreal.
Hayden, Amy J., B.A.	Westmount.
Healy, Walter J., B.A.	Montreal.
Huxtable, Maggie, B.A.	Montreal.
Idler, S. May, B.A.	Montreal.
King, L. Mabel, B.A.	Montreal.
McBain, Alex. R., B.A. (Dalhousie)	Meadowville Sta., N.S.
MacCrimmon, John R., B.A. (Queen's)	Vankleek Hill, Ont.
MacDonald, Dalraddy L., B.A.	Montreal.
Naylor, R. Kenneth, B.A.	Shawville, P.Q.
Rogers, David B., B.A.	Watford, Ont.
Ryan, Esther L., B.A.	Mattawa, Ont.
Smith, Charles A., B.A.	Maxatawny, Pa.
Timberlake, Ralph M., B.A.	Montreal.
Tyndale, Orville S., B.A.	Westmount.

PROCEEDING TO THE DEGREE OF MASTER OF SCIENCE.

Baird, John B., B.Sc.	St. John's, Nfld.
Bates, Fred W., B.A.	Brandon, Man.
Brennan, C. Victor, B.Sc.	Summerside, P.E.I.
Cameron, James S., B.Sc.	Stellarton, N.S.
Carmichael, Henry G., B.Sc.	Montreal.
Christie, Clarence E. V., B.Sc.	Halifax, N.S.
Clawson, Ernest	St. John, N.B.
Cole, L. Heber, B.Sc.	Rossland, B.C.
Day, Franklin H., B.A. (Boston)	Malden, Mass.

NAME.	HOME ADDRESS.
Elliott, Percy H., B.Sc.	Saskatoon, Sask.
Ferris, Charles E., B.Sc. (Univ. of Tennessee)	Knoxville, Tenn.
Fetherstonhaugh, Edward P., B.Sc.,	Winnipeg, Man.
Finlayson, John N., B.Sc.	Merigomish, N.S.
Fyshe, Thomas M., B.Sc.	Montreal.
Gillespie, Peter, B.A.B.Sc. (Toronto)	Toronto, Ont.
Gillis, Norman R., B.A.	Hartsville, P.E.I.
Gray, Harold H., B.Sc. (Manchester)	Barnsley, Yorkshire, Eng.
Guillet, George L., B.Sc.	Cobourg, Ont.
Hammond, Harold S., B.S.A. (Toronto)	Ste. Anne de Bellevue, P.Q
Harvie, Robert, B.A., B.Sc.	Westmount.
Haughton, Harold M. S., B.Sc.	Kingston, Jamaica.
Hayes, Albert O., B.Sc.	Granby, P.Q.
Krieble, Vernon K., Ph.B. (Brown)	Lansdale, Pa.
Lathe, Frank E., B.A., B.Sc.	Lacolle, P.Q.
Nicolls, Jasper H. H., B.Sc.	Westmount.
Pitts, Gordon McL., B.Sc.	Ottawa, Ont.
Roffey, Myles H., B.Sc.	Hornchurch, Eng.
Shaw, A. Norman, B.A.,	Westmount.
Sproule, Gordon St. G., B.Sc.	Montreal.
Sullivan, Charles T., B.A. (Dal.)	Truro, N.S.
Thomas, Franklin, B.Eng. (Iowa)	Crossfield, Alta.
Vipond, W. Stanley, B.Sc.	Montreal.
Weir, Douglas, B.Sc. (Toronto),	Ste. Anne de Bellevue, P.Q.
Wickware, Francis G., B.A., B.Sc.	New York City.

PROCEEDING TO THE DEGREE OF DOCTOR OF PHILOSOPHY.

Allen, T. B., M.A.	
Bancroft, J. Austen, M.A.	Montreal.
Boehner, Richard S., M.A.	Paradise, N.S.
Boyle, Robert W., M.Sc.	Carbonear, Nfld.
Gordon, Nathan, B.A.	Montreal.
Ince, J. W., M.A.	
Johnson, Fred, M. G., M.Sc.	Montreal.
Kirsch, Simon, M.A.	Montreal.
McLeod, Miss A. L., M.Sc.	Glace Bay, N.S.
Nicholson, John C., B.A.	Chateauguay Basin, P.Q.
Robertson, Arthur F., M.Sc.	Montreal.
Scrimgeour, Charles E., M.A. (St. Andrew's)	Montreal.

AFFILIATED COLLEGES.

McGILL UNIVERSITY COLLEGE OF BRITISH COLUMBIA

(AT VANCOUVER).

(In Arts).

FIRST YEAR

*Adams, James.
Allan, Mabel I.
Armstrong, Martha M.
*Atkins, Basil E.
*Barker, Culver M..
*Barr, Thomas
Barrett, Harry A.
Beckman, Elta M.
Busby, Edward M.
Cattell, Margaret
Chaffey, Margaret
Cowan, Beulah M.
Davidson, Jessie A.
*(3)Davis, William A.
Dougan, Wilson
England, Violet
Evans, George G.
Greggs, Gladys E.
Hamilton, Florence O.
Harris Clara E.
Holland, Richard R.
Jones, Euphemia C.
Kirkpatrick, Earl A. B.
Lane, James E.
*Leslie, James
†Long, Pearl
*McColl, Irene M.
*(3)MacConnell, Robert A.
*MacCracken, William H.
McCree, Walter T..
Macfarlane, Marguerite E.
†MacInnes, Thomas R. L.
*McLean, Archibald
*Macnaghten, Ronald F.
Mills, Annes V.
Muddell, Edward C.
Murray, William E. G.
Muttit, Leonard A.
†Orme, Noreen M.
†Paddon, Amy W.
*Patrick, Grace H.
*(3)Raynes, Walter
*Reid, Hugh S.
Rogers, Clyde H. A.
Ross, Annie L.
Sawers, Basil L.
*Sheppard, Albert
Stewart, Christine E.
*Suzuki, Juzo
Turnbull, John R.
Underhill, Ella M.
*Wallace, Bryce
Wilson, Ray H.

SECOND YEAR.

‡Boak, Eric W.
Boyd, James B.
Boyes, David A.
Bunt, William P.
DesBrisay, Isabel J.
Dixon, Margaret
Howell, Lucy M.
Knowling, Albert J.
‡Letvinoff, Lena
Lindsay, Gordon
MacKeen, Mabel H.
MacKenzie, Catherine F.
Macleod, Hazel E.
Macleod, John V.
Meadows, Stanley D.
Paterson, Edith L.
Selman, Gordon S.
Smith, Margaret A.
Sparling, Ellen M.
Taylor, Grace A.
Thomas, Owen J.
Willett, Jean T.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

*Partial Student. †Conditioned Undergraduate.

THIRD YEAR.

Manning, Viril Z.
Phipps, Roy G.
Skaling, Arthur C.
‡Thomas, E, Olive

(In Applied Science.)

FIRST YEAR

*Armytage, Maurice G.
Bagshaw, Frank
Chaffey, Charles R.
Draper, Richard
Elliott, Hector M.
†Ellis, William
Farrell, Gordon
Fleming, William R.
Leckie, John A.
McGregor, Donald M.
McLellan, Robert B.
McLennan, Robert P.
*(2)McLeod, Samuel A.
McNiven, John J.
Macrae, Lawrence P.
†Price, Harold
Smith, Philip P.
†Underhill, James T.
†Wade, M. Leighton

SECOND YEAR

Brydone-Jack, M.D.
‡Earle, Harry
Galloway, John D.
McKinnon, Duncan A.
*(2)McLeod, Samuel A.
‡Underhill, Frederic C.

(AT VICTORIA.)

(In Arts).

FIRST YEAR

Coates, Katie M.
Corry, Alice C.
Drury, Kenneth C.
Fox, Winnifred M.
Gordon, Daniel M.
Hamilton, Mary W.
*Hartman, Albert G.
†Jones, Daisy E. K.
Lehman, Edna
Loenholm, R. F.
Logan, Mamie E.
Luscombe, Edythe H.
Mowat, Barbara
Roberts, Jean
Ross, Lilian M.

SECOND YEAR

Beckwith, Harold A.
Chandler, Rena F. F.
Eberts, Harold F. H.
McKillican, N. M.
Papke, Erna C. A.

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*Partial Student. †Conditioned Student. ‡Conditioned Undergraduate.

1908 09

SUMMARY.

Students in Law		42
Students in Arts, McGill College:—		
Men—Undergraduates	175	
Conditioned	17	
Partial	58	
Women— Undergraduates	88	
Conditioned	5	
Partial	29	
Partial Students taking special courses for Teachers	28	
Students in Arts, McGill Univ. Coll. of B.C., Vancouver	79	
Students in Arts, do do do Victoria	20	
		499
Students in Applied Science:—		
Undergraduates	433	
Conditioned	58	
Partial	82	
Students in Applied Science, McGill University College of B.C., Vancouver	25	
		598
Students in Medicine:—		
Undergraduates	298	
Conditioned	27	
Partial	10	
		335
Students in the Graduate School		69
		1543
Deduct repeated in different faculties		40
Total		1503

- 7 W.

UNIVERSITY AND GRADUATES' SOCIETIES.

The Students' Society of McGill University.

(OFFICERS 1909-1910.)

President—W. Scott Robertson, Sci. '10.
Vice-President—To be elected.
Treasurer—To be elected.
Secretary—C. J. Hanratty.

Executive Council.

W. Scott Robertson, Sci. '10, Chairman.
J. C. Reilly, '10 (President Arts Undergraduates Society)
O. N. Brown, '10 (President Applied Science Undergraduates Society)
President elect of Undergraduates Society in Medicine
President elect of Undergraduates Society in Law.
D. Cushing, Law '10, President The McGill Union
Vaughan Black, Med. '10, President The Rugby Football Club
A. O. McMurtry, Arts '10, President Hockey and Skating Club
K. W. Dowie, Sci. '10, President The Track Club

The McGill Union.

(OFFICERS 1909-1910.)

Honorary President—E. B. Greenshields, Esq., B.A.
President—D. Cushing, B.A., Law '10.
Vice-President—G. F. Anderson, Sci. '10.
Secretary—W. G. Irving, Arts '11.

Undergraduates' Literary and Debating Society.

(OFFICERS 1909-1910.)

Honorary President—Principal Peterson, C.M.G.
President—D. L. Derrom, Sci. '10.
Vice-President—W. G. Irving, Arts '11.
Secretary—G. S. Currie, Arts '11.
Assistant Secretary—H. F. Angus, Arts '11.
Treasurer—A. S. Christie, Arts '11.

Undergraduates' Society in Arts.

(OFFICERS 1908-1909.)

President—A. G. McGougan, '09.
Vice-President—J. C. Reilly, '10.
Secretary—W. J. Pearse, '12.
Treasurer—A. S. Christie, '11.

Undergraduates' Society in Applied Science.

(OFFICERS 1909-1910.)

President—O. N. Brown, '10.
Vice-President—J. N. Timberlake, '10.
Secretary—P. H. Skelton, '11.
Treasurer—G. H. P. Walker, '11.

Undergraduates' Society in Medicine.

(OFFICERS 1908-1909.)

President—F. M. Auld, '09.
Vice-President—R. N. W. Shillington, '09.
Secretary—R. O'Callaghan, '10.
Assistant-Secretary—W. Bourne, '10.
Treasurer—P. L. Lavers, '10.

Undergraduates' Society in Law.

(OFFICERS 1908-1909.)

President—Gregor Barclay, '09.
Vice-President—O. B. McCallum, '09.
Secretary—A. Savard, '09.
Treasurer—W. Merrill, '11.

Physical Society.

(OFFICERS 1908-1909.)

President—Professor J. Cox,
Vice-President—Dr. H. L. Bronson,
Secretary-Treasurer—R. W. Boyle, M.Sc.
Executive Committee—The above named officers with Dr. J. W. Walker, Dr. A. Stansfield and Dr. R. B. Owens.

Chemical Society.

(OFFICERS 1908-1909.)

President—Dr. R. F. Ruttan.
Vice-President—Dr. J. W. Walker.
Secretary-Treasurer—Professor N. N. Evans.
Executive Committee—Dr. Ruttan, Dr. Walker, Professor Evans, Dr. Barnes, Dr. Stansfield.

Medical Society.

Honorary President—Dr. H. A. Lafleur.
President—H. H. Hepburn, '10.
Vice-President—H. B. Champion, '10.
Treasurer—J. D. Stewart, '11.
Secretary—R. W. Malone, '12.
Assistant-Secretary—J. G. Munro, '13.

Mining Society.

(OFFICERS 1909-1910.)

Honorary President—Dr. J. B. Porter.
President—C. S. MacLean, '10.
Vice-President—M. S. Archibald, '10.
Secretary-Treasurer—C. G. Porter, '11.

Historical Club.

(OFFICERS 1909-1910.)

Honorary President—Dr. C. W. Colby.
President—George S. Currie, Arts '11.
Vice-President—J. L. Kingston, Sci. '10.
Secretary—S. G. Dixon, Arts '11.
Treasurer—A. G. Lochhead, Arts '11.

Electric Club.

(OFFICERS 1908-1909.)

Honorary President—Dr. R. B. Owens.
Hon. Vice-President—Prof. L. A. Herdt.
President—R. H. Mulock, '09.
Secretary—M. J. McHenry, '10.
Treasurer—D. A. Jackson, '10.

The Readers' Club.

(OFFICERS 1909-1910.)

Honorary President—Dean Moyse.
President—F. G. C. Wood, Arts '10.
Vice-President—Miss Katherine Trenholme, '10.
Secretary-Treasurer—W. Gordon Irving, Arts '11.

Philosophical Society.

(OFFICERS 1909-1910.)

Honorary President—Dr. W. Caldwell.
President—A. B. Macdonald, '10.
Vice-President—J. A. Mackenzie, '09.
Secretary-Treasurer—J. F. Morris, '11.

The Science '12 Debating Club.

(OFFICERS 1908-1909.)

Honorary President—Dr. H. T. Barnes.
President—J. W. McCammon.
Vice-President—J. C. A. Davis.
Secretary-Treasurer—R. L. Cummer.

Cercle Francais.

(OFFICERS 1908-1909.)

Honorary President—Professor H. Lebeau.
President—R. Eric Fisher, Arts '09.
Vice-President—L. A. Coulin, Sci. '09.
Secretary-Treasurer—R. F. Stockwell; Law '11.

Societe Francaise.

(OFFICERS 1909-1910.)

Honorary President—Mlle Cardon.
President—Miss Edith E. Bennettts, '10.
Vice-President—Miss A. Schafheithin.
Secretary-Treasurer—Miss K. W. Lawrence, '12.

Delta Sigma Society.

(OFFICERS 1909-1910.)

President—Miss Clare Miller, '10.
Vice-President—Miss Marjorie Paterson-Smith.
Secretary-Treasurer—Miss V. L. Brown.

Young Men's Christian Association of McGill.

All are welcomed as Associate members. The active membership graduates and students of McGill University, or of the affiliated Colleges.

All are welcomed as Associate Members; the active membership comprises those who are church members.

The home of the Association is Strathcona Hall, which, in addition to affording ample accommodation for the work of the Association as a whole, provides residence for sixty men.

Full particulars regarding the work of the Association are given in the annual Hand Book, and will also be supplied by the General Secretary of the Association.

(OFFICERS 1909-1910.)

Honorary President—Dr. Alex. Johnson.
President—J. S. Jamieson, Law '10.
1st Vice-President—J. C. Reilly, Arts '10.
2nd Vice-President—F. A. Benner, Medicine '10.
Recording Secretary—W. G. Irving, Arts '11.
Treasurer—A. B. Macdonald, Arts '10.
Assistant Treasurer—K. W. Dowie, Sci. '10.

Chairmen of Committees.

Missionary—John Menzies, Sci. '10.
Religious Meetings—J. C. Reilly, Arts '10.
Bible Study—(To be appointed).
House—F. A. Benner, Medicine '10.
Social—F. C. Sutherland, Arts '10.
Reading Room and Library—T. W. Sutherland, Med. '12.
Finance—A. B. Macdonald, Arts '10.
Membership—M. J. McHenry, Sci. '10.
New Students'—(To be appointed).

Student Representatives to the Advisory Committee:—
A. A. McDiarmid, Sci. '10.
H. R. Cockfield, Arts '10.

Young Women's Christian Association of McGill University.

(OFFICERS 1909-1910.)

Honorary President—Mrs. F. D. Adams.
President—Miss E. Ruth Badgley, '10.
Vice-President—Miss V. M. MacEwen, '11.
Recording Secretary—Miss B. M. Hadrill, '12.
Corresponding Secretary—Miss F. C. Reid, '11.
Treasurer—Miss M. A. R. Stewart, '12.

Amateur Athletic Association.

(OFFICERS 1909-1910.)

President—W. L. L. Cassells, Sci. '12.
Vice-President—P. H. Skelton, Sci. '11.
Secretary—H. Slingsby, Sci. '10.

Royal Victoria College Athletic Club.

(OFFICERS 1909-1910.)

Honorary President—Miss Lichtenstein.
Honorary Vice-President—Miss Cartwright.
President—Miss Eleanor Cruickshank, '10.
Vice-President—Miss Gladys Browne, '11.
Secretary-Treasurer—Miss Eleanor Oughtred, '12.
Hockey Manager—Miss Hannah Rosenberg, '10.
Tennis Manager—Miss Margaret Brower, '10.
Basket Ball Manager—Miss Helen McEwen, '10.

Rugby Football Club.

(OFFICERS 1909-1910.)

Honorary President—Dr. J. M. Elder.
Honorary Treasurer—Principal Peterson, C. M.
President—Vaughan E. Black, Med. '10.
Vice-President—W. Roy Hastings, Law '11.
Secretary—Gordon D. Powis, Sci. '10.
Treasurer—Harry Frith, Sci. '10.
Manager—Percy D. Wilson, Arts '10.
Captain—Dan P. Gillmor, Arts '11.

Association Football Club.

(OFFICERS 1909-1910.)

Honorary President—Professor H. M. Mackay.
President—E. B. Archibald, Sci. '11.
Vice-President—A. T. N. Cowley, Sci. '10.
Secretary—E. P. Stevenson, Sci. '11.
Treasurer—J. E. Bissett, Arts '11.
Captain—R. W. Adrian, Sci. 10.

Track Club.

(OFFICERS 1909-1910.)

Honorary President—Dr. F. W. Harvey.
Honorary Treasurer—Dr. S. B. Leacock.
President—K. W. Dowie, Sci. '10.
Vice-President—J. S. Macleod, Med. '12.
Treasurer—H. R. Little, Sci. '10.
Secretary—G. F. Anderson, Sci. 10.

Hockey and Skating Club.

(OFFICERS 1909-1910.)

Honorary President—Dr. D. McCallum.
President—A. O. McMurtry, Arts '10.
Vice-President—H. M. Raphael, Med. '10.
Secretary—A. H. Elder, Arts '10.
Treasurer—C. F. K. Woodyatt, Sci. '11.
Manager—O. H. Scott, Sci. '10.

Basket Ball Club.

(OFFICERS 1908-1909.)

Honorary President—Dr. H. T. Barnes.
President—H. M. Shephard, Med. '10.
Vice-President—John Menzies, Sci. '10.
Secretary-Treasurer—H. R. Cockfield, Arts '10.
Manager—G. W. Smith, Sci. '09.
Assistant Manager—D. S. Forbes, Sci. '11.
Captain—H. T. Douglas, Arts '10.

Boxing Club.

(OFFICERS 1909-1910.)

Honorary President—W. J. Jacomb, Esq.
President—H. D. Gougeon, Sci. '12.
Vice-President—T. W. Sutherland, Med. '12.
Secretary—J. A. McCarthy, Med. '11.
Treasurer—H. L. Edwards, Sci. '12.

Rifle Association.

(OFFICERS 1909-1910.)

Honorary President—Dr. Gregor.
Honorary Vice-Presidents—Lieut.-Col. Burland, Major Mitchell, Dr. Ruttan.
Honorary Captain—Professor Nobbs.
Captain—D. Cushing, Law '10.
Lieutenants—T. E. Price, Sci. '10; S. M. Sproule, Sci. '10.
Squad-Sergeants—D. F. D. Freeze, Med. '11; A. E. Hannington, Sci. '12; H. D. Gougeon, Sci. '12; A. C. Simpson, Sci. '10.
Secretary-Treasurer—E. P. Cowles, Sci. '10.

Fencing Club.

(OFFICERS 1909-1910.)

Honorary President—Principal Peterson, C. M. G.
President—A. S. C. Trench, Sci. '10.
Secretary-Treasurer—J. G. Anderson, Sci. '11.
Committee—Professor Nobbs, C. S. Burgess, E. F. Newcombe.

Swimming Club.

(OFFICERS 1909-1910.)

Honorary President—Dr. H. T. Barnes.
President—J. Kerry, Arts '11.
Vice-President—J. N. Alford, Sci. '10.
Secretary—P. H. Skelton, Sci. '11.
Treasurer—A. A. Young, Sci. '10.
Captain—P. H. Skelton.

Lawn Tennis Club.

(OFFICERS 1909-1910.)

Honorary President—C. W. Colby, Ph.D.
President—H. T. Douglas, Arts '10.
Vice-President—G. A. S. Ramsey, Med. '13.
Secretary-Treasurer—M. G. Brooks, B.A.
Committee—Messrs. Brown, MacDermott, Lemesurier, Woodyatt.

Wrestling Club.

(OFFICERS 1909-1910.)

President—C. Dennis, Sci. '10.
Vice-President—T. A. Briggs, Med. '12.
Secretary—T. E. Gilchrist, Sci. '10.
Treasurer—D. M. Ewart, Sci. '10.

Harriers' Club.

(OFFICERS 1909-1910.)

Honorary President—Dr. Harvey.
President—H. R. Little, Sci. '10.
Vice-President—A. E. Thompson, Med. '13.
Secretary-Treasurer—A. H. Russell, Sci. '12.
Captain—A. R. MacBain.

Cricket Club.

(OFFICERS 1909-1910.)

Honorary President—The Right Hon. Lord Strathcona and Mount Royal.
President—C. E. Moyse, LL.D.
Vice-President—A. R. Oughtred, K.C.
Captain—R. H. Malone, Med. '11.
Secretary-Treasurer—F. H. Allwood, Sci. '11.
Assist-Sec-Treasurer—D. S. Gough, Bank of Montreal (Hochelaga Branch).

Western Club of McGill University.

The Club has for its objects the furthering of the interests of McGill in the four Western Provinces and the helping of new students to McGill from these Provinces.

Students from Manitoba, Saskatchewan, Alberta or British Columbia coming to McGill for the first time are requested to communicate with the Secretary of the Club, care The Union, McGill University, Montreal.

(OFFICERS 1909-1910.)

Honorary President—Dr. H. M. Tory.
President—Fred G. C. Wood, Arts '10.
Vice-President—Cyril G. Childe, Sci. '11.
Secretary-Treasurer—T. E. Price, B.A. Sci. '10.
Assistant Treasurers—Chas. Bourne, Med. '11; H. F. Angus, Arts '11.
Committee: British Columbia—G. T. Wilson, B.A., Med. '10; Alberta—H. H. Hepburn, Med. '10; Saskatchewan—T. W. Sutherland, Med. '11; Manitoba—A. T. N. Cowley, Sci. '10.

Alumnae Association of McGill University.

(OFFICERS 1909.)

President—Mrs. Douglas McIntosh.
Vice-Presidents—Miss Hall; Miss Brittain; Miss Hurlbatt; Miss K. Campbell.
Rec.-Secretary—Mrs. Hodges.
Asst. Rec.-Secretary—Miss C. Cheesbrough.
Corres. Secretary—Miss M. K. McCally.
Asst. Corres. Secretary—Miss R. Mowatt.
Treasurer—Miss M. King.
Asst. Treasurer—Miss E. P. Simpson.

Ottawa Valley Graduates' Society.

(OFFICERS 1909.)

Honorary President—Sir James Grant.
President—D. B. Dowling, B.A.Sc.
1st Vice-President—M. F. Connor, B.A.Sc.
2nd Vice-President—Dr. C. H. Higgins.
3rd Vice-President—Geo. C. Wright, B.A., B.C.L.
Treasurer—Dr. A. S. McElroy.
Secretary—J. A. Robert, B.A.Sc., Geological Survey, Ottawa, Ont.
Council—Dr. H. M. Ami; Dr. Hollingsworth, Dr. W. Bell Dawson, Dr. Preston, Sydney Ells, B.Sc.

New York Graduates' Society.

(OFFICERS 1909.)

President—M. Casewell Heine, B.A.
1st Vice-President—George Massey.
2nd Vice-President—Dr. W. B. Gibson.
Treasurer—Dr. W. Lincoln Bell.
Secretary—Dr. Gordon Gibson, 166 State St., Brooklyn, N.Y.
Governors—Dr. H. N. Vineberg; Dr. F. H. Miller, F. T. H. Bacon, B.A.Sc.; R. A. Gunn, B.A.Sc.; Dr. C. Patterson; R. H. Gillean, B.Sc.

McGill Alumni Association of Chicago.

(OFFICERS 1909.)

President—Dr. Andrew Stewart.
1st Vice-President—Dr. S. Burland.
2nd Vice-President—Dr. N. Kerr.
Secretary-Treasurer—Dr. C. H. Long, 36 Washington St., Chicago, Ill.
Councillors—Dr. E. J. Evans; Dr. D. R. MacMartin; Dr. Edward Christie.

McGill Graduates' Society of Honan, China.

President—Wm. McClure, B.A., M.D.
Vice-President—P. C. Leslie, M.D.
Secretary-Treasurer—W. J. Scott, B.A., M.D., Hwai Chang H., N. Honan, China.

McGill Graduates' Society of Manitoba.

Patron—The Right Hon. Lord Strathcona and Mount Royal.
Honorary President—Hon. Joseph Dubuc, Chief Justice, Court of King's Bench.
President—J. E. Schwitzer, B.A.Sc.
Vice-Presidents—C. A. MacKenzie, M.D.; W. A. Duff, B.Sc. F. W. Torrance, D.V.S.; E. L. Pope, M.D.
Secretary—Arthur G. Penny, B.A., Manitoba Free Press, Winnipeg, Man.
Treasurer—A. R. Dufresne, B.A.Sc.
Executive Committee—William Rogers, B.A., M.D.; John Graham, B.A.; E P. Fetherstonhaugh, B.Sc ; C. C. Gwyn; A. G. Meindl, M.D.; D. McKay, M.D.; Harvey Smith, M.D.; A. R. Greig; D. R. White, B.A.; J. Tees, M.D.

McGill Graduates' Society of British Columbia.

(OFFICERS 1909.)

Honorary President—S. J. Tunstall, M.D., C.M.
President—W. B. Burnett, M.D.
Vice-Presidents—W. P. Ogilvie, B.C.L.; H. Robertson, M.D.; J. W. Woods, M.D.; W. Dickson, M.D.; S. J. Blaylock, M.E.; M. Sullivan, B.Sc.
Secretary-Treasurer—A. E. Foreman, B.Sc., 1105 Haro St., Vancouver.
Executive—G. W. Boggs, M.D.; L. Robertson, M.A.; P. A. McLennan, M.D.; F. S. Keith, B.Sc.; A. L. Kendall, M.D.; D. McTaggart, B.C.L.

McGill University.

SESSIONAL EXAMINATIONS, 1908-1909.

Faculty of Law.

THIRD YEAR (GRADUATING CLASS)

HONOURS.

(In order of merit.)

Barclay, Gregor, B.A., Elizabeth Torrance Gold Medal; First Rank Honours; and Sir William Dawson Exhibition.

Hackett, John T., B.A.
Hing, Peter } Second Rank Honours and Prize of $50.

PASSED FOR THE DEGREE OF B.C.L.

(In order of merit.)

Barclay, G., B.A.
Hackett, J. T., B.A.
Hing, Peter } equal.
Dutaud, Gustave, B.A.
Gibb, R. W., B.A.
Savard, A., B.A.
Mathieu, Armand

STANDING IN THE SEVERAL SUBJECTS.

(In order of merit.)

CIVIL PROCEDURE.

Barclay, Hackett, Hing, Dutaud, Gibb, Savard, Mathieu.

CRIMINAL LAW.

Barclay, Dutaud, Hing, Hackett, Gibb, Savard, Mathieu.

COMMERCIAL LAW (Prof. R. C. Smith).

Barclay, Dutaud, Hing, Hackett, Savard, Mathieu, Gibb.

COMMERCIAL LAW (Mr. Justice Doherty).

Barclay, Hing, Hackett, Gibb, Dutaud, Savard, Mathieu.

GIFTS, WILLS, ETC.

Barclay, Hackett, Hing, Savard, Gibb, Dutaud, Mathieu.

MARRIAGE COVENANTS, ETC.

Barclay, Hackett, Gibb; Dutaud and Hing, equal; Savard, Mathieu.

OBLIGATIONS.

Barclay, Hackett, Hing, Dutaud, Gibb, Mathieu, Savard.

CONSTITUTIONAL LAW.

Barclay, Gibb; Dutaud and Hackett, equal; Savard, Hing, Mathieu.

ROMAN LAW.

Barclay, Dutaud; Hackett and Hing, equal; Savard, Gibb, Mathieu.

PARTNERSHIP, AGENCY AND CORPORATIONS.

Barclay, Hing, Gibb, Hackett, Savard, Mathieu, Dutaud.

INTERNATIONAL LAW.

Barclay; Hackett and Hing, equal; Dutaud, Gibb, Savard, Mathieu.

REAL PROPERTY LAW.

Barclay; Dutaud and Gibb, equal; Hackett, Hing, Savard, Mathieu.

SECOND YEAR

HONOURS.

Heward, C. G., B.A., First Rank General Standing; Scholarship of $100.

Penny, E. G. T., B.A.
Tulk, A. E. } First Rank General Standing; Prize of $25.

MacCallum, O. B., B.A., First Rank General Standing.

PASSED THE SESSIONAL EXAMINATIONS.

(In order of merit).

Heward, C. G., B.A.
Penny, E. G. T., B.A. } equal.
Tulk, A. E. }
MacCallum.
Jamieson, J. S., M.A.
Goodstone, I.
Alexander, M.
Jacobs, L.
Bélanger, G.
Cushing, D.
Tetreau, M.
Cameron } ægrotat.
Cousins }

STANDING IN THE SEVERAL SUBJECTS.

(In order of merit.)

CIVIL PROCEDURE.

Penny, Heward, Tulk, MacCallum, Goodstone, Cousins, Bélanger; Jacobs and Jamieson, equal; Tetreau, Alexander, Cameron, Cushing.

CRIMINAL LAW.

Tulk; Heward and Penny, equal; Jacobs; Goodstone and Jamieson, equal; MacCallum, Alexander, Cushing, Bélanger, Tetreau.

COMMERCIAL LAW (Prof. R. C. Smith.)

Heward; Cousins and Penny, equal; Tulk, MacCallum, Jamieson, Goodstone, Jacobs, Cameron, Alexander, Tetreau, Bélanger, Cushing.

COMMERCIAL LAW (Mr. Justice Doherty.)

Heward, MacCallum, Penny; Alexander and Tulk, equal; Jamieson, Jacobs, Goodstone, Bélanger; Cushing and Tetreau, equal.

SUCCESSIONS, ETC.

Heward, Tulk, Penny, Cousins; Goodstone and MacCallum, equal; Jamieson, Cushing, Bélanger, Tetreau, Alexander, Cameron, Jacobs.

PRESCRIPTION, ETC.

Heward, Bélanger, Penny; MacCallum and Tulk, equal; Tetreau, Jacobs, Cushing, Jamieson, Goodstone, Alexander.

OBLIGATIONS.

Heward, Tulk, Jamieson, Goodstone, MacCallum, Penny, Jacobs, Cushing, Bélanger, Tetreau, Alexander.

CORPORATIONS.

Heward and Penny, equal; Alexander, MacCallum, Tulk, Tetreau, Cushing, Jamieson, Jacobs; Bélanger and Goodstone, equal.

PUBLIC INTERNATIONAL LAW.

Heward and MacCallum, equal; Tulk, Alexander and Penny, equal; Cushing and Jamieson, equal; Goodstone, Bélanger, Jacobs, Tetreau.

REAL PROPERTY LAW.

MacCallum and Tulk, equal; Alexander, Heward, Penny, Bélanger; Cushing and Jacobs, equal; Jamieson, Goodstone, Tetreau.

FIRST YEAR

HONOURS.

Shanks, W. R. L., B.A., First Rank General Standing, Alexander Morris Exhibition and additional $50.

Fitch, L., B.A.
Hastings, W. R., B.A. } First Rank General Standing and Prize of $62.50.

PASSED SESSIONAL EXAMINATIONS.

(In order of merit.)

Shanks, W. R. L., B.A.
Fitch, L., B.A.
Hastings, W. R., B.A. } equal.
Fleet, C. A. R.
Creswell, H. J., B.A.
Archibald, K.

Waterston, E. J., B.A.
MacDonald, J., M.A.
Owens, T. S.
Merrill, W. A.
Fisher, W. C.
Burnett, R.
Nicholson, D. N.
Goldenberg, B.
Walsh, J. C.
Stockwell, R. F. (ægrotat.)

STANDING IN THE SEVERAL SUBJECTS.

(In order of merit.)

CIVIL PROCEDURE.

Waterston, Creswell, Shanks, Fleet, Fisher; Fitch and Hastings, equal; Archibald, Owens, Nicholson, MacDonald, Merrill, Burnett.

CONSTITUTIONAL LAW.

Fitch, Fleet, Shanks, Hastings; Archibald and MacDonald, equal; Creswell, Waterston, Fisher, Merrill, Owens, Walsh, Goldenberg.

LEGAL HISTORY.

Hastings, Shanks, Fitch, Creswell, Stockwell, Owens, Goldenberg, Nicholson; Archibald and Burnett, equal; Waterston, MacDonald; Fisher and Merrill, equal; Walsh, Fleet.

PERSONS.

Archibald, Shanks, Fleet, Owens; Creswell and Fitch and Nicholson, equal; Fisher, Waterston; Hastings and MacDonald and Merrill, equal; Burnett, Goldenberg, Walsh.

PLEADING AND PRACTICE.

Shanks, Hastings, Fleet, Fitch, Waterston, Creswell, Merrill, Fisher, MacDonald, Archibald, Walsh, Nicholson, Owens.

REAL RIGHTS.

Fleet, Hastings, Archibald, Creswell, Shanks, Fitch, MacDonald, Waterston, Merrill, Burnett, Walsh, Fisher, Owens, Nicholson, Goldenberg.

ROMAN LAW.

Shanks, Archibald; Fitch and Fleet, equal; Macdonald, Hastings, Creswell, Waterston, Burnett, Merrill, Owens, Walsh, Stockwell, Nicholson, Fisher.

McGill University.

SESSIONAL EXAMINATIONS, 1908-1909.

Faculty of Arts.

PASSES, HONOURS AND PRIZES.

PASSED FOR THE DEGREE OF B.A.

IN HONOURS.

(In alphabetical order.)

First Rank.

Cameron, Donald R.
Estabrooks, Florence C.
Hatcher, Albert G.
McGougan, Alexander G.
McNeill, J. T.
Meldrum, W. Buell
Townsend, Charles L.
Waterston, Douglas
Willis, F. Dorothy

Second Rank.

Brown, Theodora W.
Slattery, Annie
Vipond, Florence M.
Wisdom, Bessie B.

PASSED FOR THE DEGREE OF B.Sc. (IN ARTS.)

IN HONOURS.

(In alphabetical order.)

First Rank.

Gray, Annie R.
Schafheitlin, Gertrud

PASSED FOR THE DEGREE OF B.A.

IN THE ORDINARY COURSE.

(In order of merit. Students of equal standing are bracketed together.)

Class I.

McDonald, Jessie.

Class II.

Hindley, Wilbur W. }
Packard, Mortimer L. }
Paterson, Edward R.
Richardson, John A.
Fleet, Charles A. R.
Archibald, Kenneth
Hale, Charles A.
Drummond, Guy M.
Fisher, R. Eric
Dennison, Lawrence G. }
Massé, Alice E. }
Norris, Ruby A.
Pedley, Hugh S.
Cheesbrough, Hilton S.
Carey, William V.
Harvey, Charles H.
Holden, Herbert L. L.
Tremblay, Joseph A.
Plimsoll, A. Reginald W.

Class III.

Green, Pearl A.
Gordon, Walter H.
Surprenant, Thomas S. H.
LeMesurier, C. Stuart
MacKenzie, James A.
Moodie, Robert T.
Bole, Thomas H.
Elliott, Edith E.
Bradley, William L.
Corbett, Edward A.
Mitchell, Ada L.
Daw, Herbert B.
Wilson, Florence M.

DOUBLE COURSE IN ARTS AND APPLIED SCIENCE.

Ayer, Kenneth R.
Ross, Gordon
Wilson, T. Edgar
Wood, Harold W.

DOUBLE COURSE STUDENTS IN ARTS AND MEDICINE WHO WILL BE QUALIFIED TO OBTAIN THE DEGREE OF B.A. IN JUNE, 1909, ON COMPLETING THEIR MEDICAL YEAR.

Canegata, David C.
Clouston, Howard R.
Gliddon, William O.
Mavety, LeRoy
Shannon, W. Lloyd

FOURTH YEAR (GRADUATING CLASS)

HONOURS.

(Subjects arranged alphabetically.)

1. IN BIOLOGY.

Cameron, Donald R.....First Rank Honours.

Schafheitlin, Gertrud.....First Rank Honours and Hiram Mills Gold Medal.

Waterston, Douglas.....First Rank Honours.

Slattery, Annie .....Second Rank Honours.

IN BOTANY (only).

Gray, Annie R.....First Rank Honours.

2. IN CHEMISTRY.

Meldrum, W. Buell.....First Rank Honours.

3. IN CLASSICS.

Estabrooks, Florence C.....First Rank Honours and Chapman Gold Medal

IN LATIN (only.)

Townsend, Charles L.....First Rank Honours.

4. IN THE ENGLISH LANGUAGE AND LITERATURE.

McNeill, John T.....First Rank Honours and Shakspere Gold Medal

5. IN HISTORY AND ENGLISH

Willis, Dorothy.....First Rank Honours.
Wisdom, Bessie.....Second Rank Honours.
Brown, Theodora.....Second Rank Honours.

6. IN MATHEMATICS AND PHYSICS.

Hatcher, A. G.....First Rank Honours and Anne Molson Gold Medal.
McGougan, A. G.....First Rank Honours.

7. IN MODERN LANGUAGES.

Townsend, Charles L.....First Rank Honours.
Vipond, Florence.....Second Rank Honours

FIRST RANK GENERAL STANDING.

B.A. COURSE.

McDonald, Jessie... .....Special Certificate.

THIRD YEAR.

HONOURS.

(Subjects arranged alphabetically.)

1. IN CLASSICS.

Paterson-Smyth, Charles....First Rank Honours.
Murphy, A. Winnifred .....First Rank Honours
Cockfield, Harry R.....Second Rank Honours.
Seymour, Louise E.....Second Rank Honours.

2. IN ECONOMICS AND HISTORY.

Couture, Réné P.....First Rank Honours

3. IN ECONOMICS AND POLITICAL SCIENCE

de Sola, Bram C.....First Rank Honours.
Mariotti, Humbert C. G....First Rank Honours.
Elder, Aubrey H.....First Rank Honours.

4. IN THE ENGLISH LANGUAGE AND LITERATURE

Wood, Frederic G. C.....First Rank Honours.
Green, Cecelia R.....Second Rank Honours.
Johnston, Charlotte L.....Second Rank Honours.
Brower, Margaret N.....Third Rank Honours.

5. IN FRENCH AND ENGLISH.

MacNaughton, Gordon F...First Rank Honours.
Trenholme, Catherine T....First Rank Honours.

6. IN HISTORY AND ENGLISH.

Reilly, J. Clark.....Second Rank Honours.
Thorne, Oliver.....Second Rank Honours.

7. IN LATIN AND ENGLISH.

Mount, Ruth.....Third Rank Honours.

Brehaut, Cora.....Third Rank Honours.

8. IN HISTORY AND ECONOMICS.

Cruickshank, E. J.....Second Rank Honours

9. IN LATIN AND FRENCH.

McKinnon, Annie M.....First Rank Honours.

10. IN MATHEMATICS AND PHYSICS.

Mabon, J. Bertram,.....First Rank Honours.

PRIZES.

Gordon, J. Thom.....Neil Stewart Prize (Extra).

McWhinney, Margaret O....Annie McIntosh Prize.

PASSED THIRD YEAR EXAMINATIONS.

FOR COURSE LEADING TO B.A.

(Arranged in alphabetical order.)

Armstrong, Badgley, Bennetts, Brehaut, Brower, Brownlee, Carr, Cockfield, Couture, Cruickshank, Cushing, deSola, Elder, Gordon, Green, Hutchinson, Johnston, Lamb, Lawlor, Macdonald (*s*), McEwen, McGannon, McKinnon, McMurtry (*s*), Macnaughton, McWhinney, Mabon, Manning (*s*)‡, Mariotti, Miller, Mount, Murchison, Murphy, Paterson-Smyth, Phipps‡, Plaisted, Powles, Prentice, Robinson (*s*), Rosenberg, Runnells (*s*), Seymour, Skaling ‡, Solomon, Sutherland, Taylor, Thorne, Tippet, Trainor, Trenholme, Wood.

UNDERGRADUATES IN ARTS REGISTERED IN MEDICAL FACULTY, WHO WILL BE QUALIFIED TO ENTER THE FOURTH YEAR ARTS ON COMPLETING THEIR MEDICAL YEAR.

Bruneau, I. Edgar
Digby, Reginald W.
Douglas, H. Townley (*s*)
Kolber, Joseph (*s*)
Ramsay, Irving D.
Ross, S. Graham

(*s*) Supplemental in one subject.
‡ McGill University College of B.C., Vancouver.
† " " " Victoria.

SECOND YEAR.

HONOURS.

IN MATHEMATICS AND PHYSICS.

Paterson-Smyth, Marjorie...First Rank Honours.
Maass, Otto.....First Rank Honours.
Scott, Arthur A.....First Rank Honours.
Creaghan, T. Cyril.....Second Rank Honours.

IM MATHEMATICS.

King, A. N.....Second Rank Honours.

ADVANCED SECTIONS.

FRENCH.

First Class.

Grimes, Evie M.
Angus, Henry F.
Paterson-Smyth, Marjorie
Larivière, Henry A., and Schafheitlin, Anna, equal.

Second Class.

Hammond, Doris
Dewey, A. G.
McGoun, A. F.

Third Class.

Cherry, W. M.
Williams, Marion F.
Duval, Leon M.
Lochhead, Allan G.

PSYCHOLOGY.

Bridges, J. W.....First Class.
Proctor, Samuel J.....Second Class.

LATIN.

(Extra course open to First and Second Years.)

Angus, Henry F.....First Class.
Weir, George.....Second Class.
King, A. N.....Second Class.
Dewey, A. G.....Second Class.

PRIZES.

Dowd, Norman S.....Neil Stewart Prize.
Warburton, Hugh.....Coster Memorial Prize.

‡ McGill University College of B.C., Vancouver.
† " " " Victoria.

PASSED THE SECOND YEAR EXAMINATIONS.

COURSE LEADING TO B.A.

Class I.

Angus.
Grimes.
Bridges and Weir, equal.
Chandler†.
Hammond.
McGoun (A. F.)
King.
Paterson‡.

Class II.

Murchison.
Warburton.
Schafheitlin.
Howard.
Dewey.
Kerry.
Cunningham and Des Brisay‡, equal.
Williams.
Currie and Taylor‡, equal.
Lindsay‡.
Macnaughton.
MacDonald and McKillican†, equal.

Class III.

Robertson and Thomas‡, equal.
Hayden.
Reid and Boak‡, equal.
Craig (*s*) and Tannenbaum, equal.
Dowd and Smith (*s*)‡, equal.
Dixon.
MacAdam (*s*).
Sparling‡.
Irving.
Morris (R.).
Morris (J. F.)
Lochhead.
Fletcher and MacEwen (*s*), equal.
Willett‡.
Bissett (*s*).
Maclean and Beckwith†, equal.
Greer (*s*).
Ellison (*s*) and VanVliet (*s*), equal
Gillmor.
Moyse.
Hannah and Papke†, equal.
McQueen.
Macleod (J.)‡,
Donald (*s*).
Cherry (*s*).
Boyd‡.
Heney

‡ McGill University College of B.C., Vancouver.
† " " " Victoria.

Herschorn (*s*) and Macleod (H.) (*s*)‡, equal.
Larivière (*s*).
Selman (*s*)‡.
Dixon‡.
Davidson (*s*).
Armstrong (*s*).
Eberts (*s*)†.
Boyes (*s*)‡.
Knowling (*s*)‡ and Mackeen (*s*)‡, equal.

(2) FOR COURSE LEADING TO B.SC.

Class I.
None.
Class II.
Coote.
Class III.
None.

(*s*) Supplemental in one subject.

FIRST YEAR.

ADVANCED SECTIONS

IN MATHEMATICS

First Class.
Couture, A. P.

Second Class.
Joseph, K. de S.
Dean, J. R.

Third Class.
None.

IN FRENCH.

First Class.
Couture, A. P.
Goldblatt, H. and Gronin, J., equal.
Bennett, A. J.

Second Class.
Roback, A. A.
Kert, I.
Demers, J. V., and Stewart, Mary, equal.

Third Class.
Legris, Louis
Hadrill, Beatrice, and Muhlstock, A. W., equal.
Budyk, J.
Mathewson, F. S.
Gnaedinger, H. G.
Mathewson, J. A.

‡ McGill University College of B.C., Vancouver.
† " " " Victoria.

PASSED THE FIRST YEAR EXAMINATIONS.

(1) FOR COURSE LEADING TO B.A.

Class I.

Couture.
Hamilton†.
Pearse.
Babcock.
Cockfield.
French.
Goldblatt and Gronin, equal.
Hyatt and Young, equal.
Bennett.
Ross.
McInnis.
Lawrence.
Gordon†.
Murray ‡

Class II.

Freeman.
Manny.
Longworth.
Muddell‡.
Kert.
Loenholm†.
Cowan‡.
Joseph.
Budyk.
Walker (M. G.)
Roback (*s*).
Corry†.
Ross†.
Henry and McVittie, equal.
Lindsay.
Mills‡.

Class III.

Kneeland.
Stewart‡.
Brown (V. L.) (*s*).
McLaurin (C. E.).
Allan and Robinson, equal.
Wilkes (*s*).
Stewart.
Lehman†.
Youngheart and Davidson‡, equal.
Ashby and Gnaedinger, equal.
Campbell (*s*) and Drury (*s*)† and Harris‡ and Luscombe†, and McCree (*s*)‡, equal.
Cameron and Lane (*s*)‡, equal.
McLaurin (B. M.) (*s*).
Greggs‡.
Mathewson (J. A.).
Braeuer (*s*) and Davidson, equal.

‡ McGill University College of B.C., Vancouver.
† " " " Victoria.

Busby (*s*)‡.
Dean.
Muhlstock.
Johnson and Barlow, A. F. (*s*), equal.
Dumaresq and Thomson (H. F.) (*s*), equal
Muttit (*s*)‡
Hamilton‡.
Hall (*s*) and Fox (*s*)†, equal.
Younger.
Walker (H. F.) (*s*)
Mowatt†
Oughtred (*s*).
Beckman (*s*)‡.
Quigley (*s*).
Percival (*s*).
Pennington (*s*).
Allan (*s*)‡.
Lumsden (*s*).
Grossman (*s*).

(2) FOR COURSE LEADING TO B.SC.

Class I.
None.
Class II.
Going (*s*).
Class III.
Mathewson (W.) (*s*).
McCaghey.
Barlow (W. D.) (*s*).

(*s*) Supplemental in one subject.

STANDING IN THE SEVERAL SUBJECTS

FOURTH YEAR

BOTANY (Special Morphology.)

Class I.—Schafheitlin, Cameron, Gray, Waterston. *Class II.*—Slattery.

BOTANY (Systematic).

Class I.—Cameron, Gray. *Class II.*—None. *Class III.*—None.

BOTANY (Structure of Woods).

Class I.—Cameron, Harvey. *Class II.*—None. *Class III.*—None.

CHEMISTRY.

Class I.—Meldrum. *Class II.*—None. *Class III.*—None.

COMPARATIVE PHILOLOGY.

Class I.—Estabrooks. *Class II.*—None. *Class III.*—None.

‡ McGill University College of B.C., Vancouver.
† " " " Victoria.

CONSTITUTIONAL LAW.

Class I.—Fleet, Archibald. *Class II.*—None. *Class III.*—None.

ENGLISH COMPOSITION (1).

Class I.—Wisdom, McNeil, Hindley. *Class II.*—Norris and Willis, equal; Archibald, Pedley, Hale, Moodie, Brown and Fisher and LeMesurier, equal. *Class III.*—Holden, Elliot and Massé, equal; Green, Bradley, Bole, Harvey.

ENGLISH COMPOSITION (2).

Class I.—Paterson; Geggie and McDonald, equal; Clouston; Drummond and Fleet, equal. *Class II.*—Gray and Ross, equal; Gordon, Surprenant, Mitchell; Cheesbrough and Gliddon, equal; Richardson; Carey and Corbett and Packard, equal. *Class III.*—Mackenzie, Wilson (T. E.), Canegata; Mavety and Tremblay, equal; Plimsoll, Daw; Keays and Shannon, equal; Dennison and Wilson (F. M.), equal.

ENGLISH LITERATURE.

(1) English Prose Fiction.

Class I.—Hindley and McNeil, equal; Holden and Norris, equal; Fisher, Wisdom. *Class II.*—Green; Hale and LeMesurier and Moodie, equal; Brown and Harvie and Massé, equal; Pedley, Elliott. *Class III.*—Bole.

(2) Nineteenth Century Poets.

Class I.—McNeil; LeMesurier and Pedley, equal. *Class II.*—Massé, Green; Hindley and Willis, equal; Brown, Elliott, Wisdom; Fisher and Norris, equal. *Class III.*—Moodie, Hale, Gordon (J. T.), Bole, Bradley.

(3) Comparative Literature.

Class I.—Wood; McNeil and Reilly, equal; Green and Trenholme, equal; Macnaughton; Brower and Johnston, equal. *Class II.*—Archibald and Holden, equal; Thorne. *Class III.*—None.

FRENCH.

Class I.—Massé, Tremblay, Packard. *Class II.*—Fisher, Vipond, Holden, Fleet; Cheesbrough and Drummond, equal; Elliott and Plimsoll, equal. *Class III.*—Archibald, Wilson.

GEOLOGY.

Class I.—Paterson, Dennison. *Class II.*—Ross, Wilson, Hindley *Class III.*—None.

GEOLOGY (Continuation Course).

Class I.—Paterson, Harvey. *Class II.*—None. *Class III.*—None.

‡ McGill University College of B.C., Vancouver.
† " " " Victoria.

GERMAN.

Class I.—Townsend. *Class II.*—Vipond. *Class III.*—None.

GREEK.

Class I.—Estabrooks. *Class II.*—None. *Class III.*—None.

HISTORY.

Class I.—Cheesbrough and Mackenzie, equal. *Class II.*—Bole and Drummond, equal; Tremblay, Gordon, Mitchell. *Class III.*—Massé, Wilson, Corbett, Bradley.

ITALIAN.

Class I.—Townsend. *Class II.*—None. *Class III.*—None.

LATIN.

Class I.—Estabrooks, Townsend. *Class II.*—None. *Class III.*—Mitchell.

HISTORY OF PHILOSOPHY.

Class I.—Hale and Richardson, equal. *Class II.*—Gordon, Mackenzie. *Class III.*—Corbett.

POLITICAL SCIENCE.

Class I.—McDonald, Drummond, Plimsoll. *Class II.*—Dennison and Wilson, equal; Pedley, Ross; Harvey and Packard, equal. *Class III.*—Richardson, Fisher; Cheesbrough and Suprenant, equal; Gordon, Norris, Mackenzie; Daw and Green, equal; Hale and LeMesurier, equal; Bole and Holden and Paterson, equal; Corbett and Elliott and Mitchell and Tremblay and Wilson, equal.

ROMAN LAW.

Class I.—Archibald, Fleet. *Class II.*—Carey. *Class III.*—Plimsoll, Daw.

THIRD YEAR

BOTANY.

Class I.—None. *Class II.*—Miller (C.). *Class III.*—Sutherland.

CHEMISTRY.

Class I.—None. *Class II,*—Digby; Douglas and Kolber and Ramsay, equal. *Class III.*—Shoster.

COMPARATIVE PHILOLOGY.

Class I.—Macnaughton, Seymour. *Class II.*—Cockfield and Trenholme, equal; McKinnon (A.M.); Brehaut and Paterson-Smyth, equal. *Class III.*—Mount.

‡ McGill University College of B.C., Vancouver.
† " " " Victoria.

HISTORY OF EDUCATION.

Class I.—None. *Class II.*—Carr, Lawlor, Rosenberg. *Class III.*—Murchison, Lamb.

THEORY OF EDUCATION.

Class I.—None. *Class II.*—Miller, Hale, McKinnon (A. M.); Carr and McEwen, equal; Seymour. *Class III.*—Lawlor; Plaisted and Surprenant, equal; Rosenberg, Mount, Murchison, Johnston, Lamb.

ENGLISH COMPOSITION (1).

Class I.—Trenholme, Reilly, Wood. *Class II.*—Brower and Johnston, equal; Thorne, Badgley, Green, Robinson, Macnaughton, Brownlee. *Class III.*—Gordon and Plaisted and Rosenberg, equal; McWhinney and Sinclair, equal; Carr and McEwen and Murchison, equal; Baylis and Phipps‡, equal; Drury, Skaling‡; McMurtry and Runnells, equal.

ENGLISH COMPOSITION (2).

Class I.—Tippet, Sutherland. *Class II.*—Armstrong, Douglas, Cushing, Powles, McMahon. *Class III.*—Mount and Taylor, equal; Hutchinson and Lamb, equal; McGannon, Solomon; Bennetts and Bruneau and Prentice and Wilson, equal; Digby and Ross and Trainor, equal; Kolber; Brehaut and Lawlor, equal; Macdonald and Ramsay, equal.

ENGLISH LITERATURE.

(1) Eighteenth Century.

Class I.—Badgley and Wood, equal; Green and Murchison, equal; McEwen, Brower, Reilly, McWhinney. *Class II.*—Johnston and Thorne, equal; Rosenberg, Carr, Brownlee, Robinson, Baylis, Runnells. *Class III.*—McMurtry and Sinclair, equal; Drury, Phipps‡, Plaisted, Skaling‡, Manning‡.

(2) Shakspere.

Class I.—Badgley, McWhinney and Wood, equal. *Class II.*—Reilly, Murchison, Carr; Plaisted and Rosenberg, equal; Green. *Class III.*—Brownlee and Phipps‡, equal; Johnson, Baylis, Thorne, McEwen, Brower, Skaling‡; McMurtry and Robinson, equal.

FRENCH.

Class I.—McKinnon, Macnaughton, Trenholme. *Class II.*—Bruneau, Bennetts, Cushing. *Class III.*—Prentice and Taylor, equal; Plaisted; Badgley and Brownlee and Hutchinson, equal; McMurtry, Solomon.

GEOLOGY.

Class I.—Badgley and McWhinney, equal; Mabon; Lamb and Tippet, equal; Murchison; Lawlor and Rosenberg, equal; Taylor; Bennetts and Carr and Powles, equal; Hutchison, Prentice. *Class II.*—Plaisted, Cushing, McCuaig,; McGannon and Wilson, equal; Baylis and McMahon, equal; McEwen, Miller. *Class III.*—Brownlee and Moule, equal; Sutherland, Robinson.

‡ McGill University College of B.C., Vancouver.
† " " " Victoria.

GERMAN

Class I.—None. *Class II.*—Prentice, Taylor, Bennetts. *Class III.*—Sutherland.

GREEK.

Class I.—Murphy, Paterson-Smyth. *Class II.*—Seymour, Cockfield, Tippet. *Class III.*—Powles.

HEBREW.

Class I.—Gordon. *Class II.*—None. *Class III.*—Moodie.

HISTORY.

Class I.—Couture, Cruickshank. *Class II.*—Armstrong, Thorne; Lamb and Solomon, equal; Reilly, Wilson. *Class III.*—McEwen, Mc Gannon, Macdonald.

LATIN.

Class I.—McKinnon; Cockfield and Murphy and Paterson-Smyth, equal. *Class II.*—Seymour, Mount, Brehaut. *Class III.*—Powles, Phipps‡, Manning‡, Skaling‡, Trainor.

MATHEMATICS.

Class I.—Lawlor. *Class II.*—Trainor. *Class III.*—None.

MORAL PHILOSOPHY.

Class I.—Hindley; McDonald (Jessie) and Paterson and Surprenant, equal; Pedley. *Class II.*—Carey; Bradley and Green, equal; Gordon and Macdonald (A. B.) and Scott, equal; Merrilees and Ross, equal; McCuaig and LeMesurier, equal. *Class III.*—Daw, Runnells, Ramsay, McKay, Sinclair.

PHYSICS.

Class I.—Armstrong. *Class II.*—None. *Class III.*—Cassells, Skaling‡, Phipps‡, Manning‡.

POLITICAL ECONOMY.

Class I.—Digby. *Class II.*—Wilson. *Class III.*—Trainor, Armstrong, McGannon.

POLITICAL SCIENCE.

Class I.—None. *Class II.*—McWhinney, Cruickshank. *Class III.*—Hutchison and Tippet, equal; Cushing and Ross (S. G.), equal.

ZOOLOGY.

Class I.—Bruneau. *Class II.*—Solomon. *Class III.*—Miller.

‡ McGill University College of B.C., Vancouver.
† " " " Victoria.

SECOND YEAR

BIOLOGY.

(1) Animal Biology (Christmas, 1908).

Class I.—Schafheitlin. *Class II.*—Currie. *Class III.*—Moyse, MacDonald Argue, Goudie.

(2) Plant Biology.

Class I.—Schafheitlin, Lochhead. *Class II.*—Macdonald, Currie, Mewburn. *Class III.*—Moyse, Jacobs, Argue, Roberts.

(ANIMAL BIOLOGY.)

(Passed supplemental of Christmas examination.)

Lochhead.

CHEMISTRY.

Class I.—Maass, Scott, Cunningham. *Class II.*—Tannenbaum, Coote; Creaghan; Donald and Lochhead, equal; Herschorn and McQueen, equal; Boak‡, Livinson, Mewburn and Thomas‡, equal; *Class III.*—Barlow and Hill and Maclean, equal; Cherry, Taylor‡, Hulburd, Roberts and Sparling‡, equal; Bissett; Armstrong and Davidson,equal, Argue, Wadleigh, VanVliet, Boyes‡; Macleod (H.)‡, McGoun, (G. G.), Mackeen‡,

ENGLISH COMPOSITION.

Class I.—Chandler†, Angus, Warburton; Hammond and Williams, equal; Macnaughton and Taylor‡, equal; Bridges and Grimes and Howard and Kerry, equal; Murchison. *Class II.*—Des Brisay‡, Paterson-Smyth, Ellison, Paterson‡; Schafheitlin and VanVliet, equal; MacAdam and Weir, equal; Craig and Gillmor and McEwen, equal; Armstrong and Dewey and Morris (J. F.), and McKillican†, equal; McGoun (A. F.) and Beattie and Greer and Willett‡, equal; Robertson and Smith‡, equal; Irving and Macdonald, equal; Bissett and Coote and Wilson and Letvinoff‡, equal; Hayden and Morris (R.) and Boak‡ and Lindsay‡, equal; *Class III.*—Booth and Olmstead and Reid and Sparling‡, equal; Smith and Selman‡, equal; King and Lochhead and Scott and Tannanbaum, equal; Fletcher and Hannah and Hayden and Moyse, equal; Donald and Boyd‡,equal; Christie and Livinson and Newcombe and Macleod (J.)‡ and Thomas‡, equal; Maclean; Hulburd and Papke†, equal; Macleod (H.)‡; Currie and MacQueen and Wanklyn, equal; Creaghan and Dixon and Herschorn, equal; Brown and Hill and Meadows‡, equal; Brock and Cunningham and Larivière, equal; Argue and Maass, equal; Daw; Cook and Dowd and Eberts† and Knowling‡, equal; Beckwith† and Heney and Treanor and Wadleigh, equal; Cherry; Mewburn and Millman and Mackenzie‡ and Boyes‡ and Dixon‡, equal; Davidson and Jacobs and McGoun (G. G.) and Roberts and Mackeen‡, equal.

‡ McGill University College of B.C., Vancouver.
† " " " Victoria.

ENGLISH LITERATURE.

Class I.—Angus and Howard and Paterson‡, equal; Bissett and Chandler†, equal; Weir, Smith‡; Warburton and Des Brisay‡, equal; Kerry and King and Murchison, equal; Grimes; Hammond and Macnaughton and Williams, equal. *Class II.*—Sparling‡; MacAdam and Letvinoff‡ and Lindsay‡ and Willett‡, equal; Schafheitlin and Boak‡ and McKillican†, equal; Wanklyn and Macleod (J.)‡, equal; Hayden and Smith and Meadows‡, equal; Bridges and Ellison and Wilson and Taylor‡, equal; Macleod (H.)‡ and Thomas‡, equal; Reid; Brock and Greer and MacDonald and Beckwith†, equal; Gillmor and MacEwen and VanVliet, equal; Craig and Cunningham and Hulburd and Boyd‡, equal; Beattie and Donald and Ellison and Olmstead, equal. *Class III.*—Cook and Fletcher and Boyes‡, equal; Morris (R.) and Robertson and Mackeen‡, equal; Irving; MacQueen and Morris (J. F.), equal; Dixon‡ and Knowling‡, equal; Haden and Moyse and Selman‡, equal; Christie and Hannah, equal; Armstrong and Maclean, equal; Mackenzie‡, Heney, Papke†; Hill and Eberts†, equal; Wadleigh, Browne, Trainor, Larivière, Davidson.

FRENCH.

Class I.—None. *Class II.*—Hayden, Bernstein; Robertson and Chandler†, equal; McEwen and Reid and DesBrisay‡, equal; Greer. *Class III.*—Livinson and Maass and MacAdam and VanVliet and Lindsay‡, equal; Brown (G.) and Olmstead, equal; Dixon, Willett‡, Kerry, Gillmor; Scott and Boak‡, equal; Coote and Tannenbaum, equal; Macnaughton and McQueen and McGoun (G.) and Taylor‡, equal; Herschorn and Papke†, equal; McKillican†, Heney; Millman and Macleod (J.)‡ and Beckwith†, equal; Wilson and Sparling‡, equal; Jacobs; Boyd‡ and Bunt‡, equal; Brown (M.).

GERMAN.

Class I.—None. *Class II.*—Williams and DesBrisay‡, equal; Coote, Craig. *Class III.*—Cherry.

GREEK.

Class I.—McGoun (A. F.), Paterson‡, King, Weir. *Class II.*—Hammond; Murchison and Smith‡, equal; Angus and Dewey, equal; Morris (R.). *Class III.*—Thomas‡, Hannah; Morris (J. F.) and Howell‡, equal; Booth; Maclean and Dixon‡, equal; Letvinoff‡, Larivière.

HEBREW.

Class I.—Dowd. Booth. *Class II.*—Gale, Nicholson, Gordon. *Class III.*—Merrilees, Fletcher, MacKay, McCuaig, Moodie, Munn.

HISTORY.

Class I.—Howard, Currie, Angus, McGoun (A. F.), Irving; Kerry and Warburton, equal; Bridges and Dewey and Tannenbaum, equal. *Class II.*—McEwen, Murchison, Morris (R.); Macdonald and Newcombe, equal; Dixon and Olmstead and Wanklyn, equal; Christie, Greer; Heney and Proctor, equal; Fletcher and Herschorn and Moyse, equal. *Class III.*—Hulburd and Reid, equal; Booth and Ellison, equal; Gillmor; Daw and Hill, equal; Brown (M.), Wadleigh; Brown (A.) and Cook, equal; Brock and Dowd, equal; Millman.

‡ **McGill University College of B.C., Vancouver.**
† " " " **Victoria.**

POLITICAL ECONOMY.

Class I.—Angus, Warburton, Bridges, Dowd, McGoun (A. F.), Howard; Kerry and Wanklyn, equal; Currie and Fletcher, equal. *Class II.*—Murchison, Dewey; Brock and MacDonald, equal; Christie, Booth; Dixon and Tannenbaum, equal; Proctor. *Class III.*—Reid, Irving; Herschorn and Moyse, equal; Millman; Cook and Ellison and Greer and Morris, equal; McEwen, Heney, Newcombe; Hill and Olmstead, equal; Gillmor and Daw, equal.

LATIN.

Class I.—Grimes, Paterson-Smyth, King, Angus, McGoun (A. F.), Paterson‡; Hammond and Beckwith† and Chandler†, equal; Murchison, Weir. *Class II.*—Bridges, Dewey; Cunningham and Lindsay‡, equal; Schafheitlin and Taylor‡, equal; Thomas ‡ and Papke†, equal. *Class III.*—Macnaughton and McKillican†, equal; Howell‡; Kerry and Robertson and DesBrisay‡ and Sparling‡, equal; Bissett and Macleod (E. H.)‡, equal; Currie and Heney and Williams and Meadows‡, equal; Lochhead and Maclean and Morris (J. F.) and Warburton, equal; Howard and Smith‡, equal; Dowd and Fletcher and Dixon‡, equal; Reid and Boak‡, equal; Hannah and Boyd‡ and Bunt‡ and Macleod (J.)‡ and Willett‡, equal; Dixon and Olmstead and Selman‡, equal; Mackeen‡; Morris (R.) and Tannenbaum and Eberts†, equal; Hayden and Moyse, equal; Letvinoff‡; Irving and Knowling‡, equal; Davidson and Mac Donald and Roberts, equal; Jacobs; Gillmor and Hill and MacQueen, equal.

LOGIC (Christmas, 1909.)

Class I.—Bridges, Grimes, Warburton; King and Weir, equal; Smith; Craig and Davidson and Dixon, equal. *Class II.*—Robertson, Hayden, Cherry; Currie and MacAdam and Wilson, equal. *Class III.*—Irving and Maclean, equal; Booth and Dowd, equal; Morris; Armstrong and Hannah, equal; Proctor, Ellison, Lariviere.

LOGIC.

(Passed Supplemental of Christmas examination.)

Newcombe.

MATHEMATICS (Christmas, 1908.)

(1) Solid Geometry and Conic Sections.

Class I.—Howard. *Class II.*—Cunningham, Coote, McKillican†, Chandler†. *Class III.*—Paterson‡; MacDonald and Meadows‡, equal; Boyes‡; Macnaughton and Dixon‡ and Macleod (J.)‡, equal; Selman‡, Peck, McGoun (G. G.), Lindsay‡; Donald and Boyd‡ and Knowling‡ and Willett‡, and Beckwith†, equal.

‡ McGill University College of B.C., Vancouver.
† " " Victoria.

(2) Algebra.

Class I.—Cunningham. *Class II.*—Chandler†. *Class III.*—Coote and Howard and Paterson‡ and McKillican† and Papke†, equal; Lindsay‡, Dixon‡; Peck and Willett‡, equal; Boyd‡ and Beck; with†, equal; Knowling‡; Donald and Boyes‡ and Smith‡ and Eberts†, equal; Macnaughton and Macleod (J.)‡ and Selman‡, equal.

PHYSICS.

Class I.—Maass, Paterson-Smyth, Scott, Creaghan. *Class II.*—None. *Class III.*—None.

PSYCHOLOGY.

Class I.—Grimes, Weir, Bridges. *Class II.*—King, Dixon, Warburton, MacAdam, Irving, Maclean, Currie; Hannah and Morris (J. T.), equal. *Class III.*—Craig, Proctor, Dowd, Brock; Hayden and Ellison, equal; Robertson; Armstrong and Booth, equal.

FIRST YEAR

ENGLISH LITERATURE, COMPOSITION AND HISTORY.

Class I.—Murray‡, Pearse, French; Going and Manny, equal; Longworth; Bennett and Brown (V. L.) and Cockfield and Gordon† and Hamilton†, equal. *Class II.*—Osborne and Wilson (M. G.) and Mills‡ and Muddell‡, equal; Couture and Reid‡, equal; Young; Lawrence and Pennington and Thomson (H. F.) and Cowan‡ and Harris‡, equal; Freeman, Joseph; Babcock and Beckman‡ and McCree‡, equal; Hyatt and Ross (B. M.) and Greggs‡, equal; Hall and Hughes and Kert and Stewart and Busby‡ and Davidson‡ and Holland‡ and Muttitt‡ and Corry†, equal; Jackson and McInnis and Robinson and Thomson (A. K.), equal; Ashby and Goldblatt and Allan‡, equal; Braeuer and Budyk and Gronin and McLaurin (B. M.) and Watts and Ross†, equal. *Class III.*—Bradbury and Davidson (W. L.) and Kneeland, equal; Barlow (W. D.) and Percival and Walker (M. G.) and Wilkes and Youngheart, equal; Ellis and McVittie and Roback and Hamilton‡, equal; Johnson and Fox†, equal; Green and Turnbull‡, equal; Fiske; Armour and Barlow (A. F.) and Cameron and Lumsden and Mathewson (F. S.), equal; McLeod and Mathewson (J. A.) and Oughtred, equal; Allan and Haldane and Lindsay and Merrill and Mick and Muhlstock and Stevenson (R. B.) and Younger and Loenholm†, equal; Dean and Drury†, equal; Dumaresq and McGillis and Stewart‡, equal; Quigley and Lehman†, equal; Campbell (W. V.) and Common and Inns, equal; Gnaedinger and Kinnear and Lummis and Luscombe† and Mowat†, equal; Grossman and Hodgson and Pedley, equal; McGillis (S. V.); Duguid and McCaghey, equal; Alguire.

PASSED IN LITERATURE AND COMPOSITION.

Campbell (L. M.), Hadrill, Naughton, Pinhey, Proctor, Cattell‡; Jones‡, Logan†, Macfarlane‡, Orme‡, Underhill‡.

‡ McGill University College of B.C., Vancouver.
† " " " Victoria.

PASSED IN LITERATURE AND HISTORY.

Boright, Coates†, Roberts†, Wilson‡.

PASSED IN HISTORY AND COMPOSITION.

Clark, Davidson (D. A. L.), Greenwood.

PASSED IN HISTORY.

Legris, Marler, Scott, Smith (E. L.), Kirkpatrick‡.

PASSED IN LITERATURE.

England‡.

PASSED IN COMPOSITION.

Barrett‡, Paddon‡, Patrick‡, Ross‡.

FRENCH.

Class I.—Hamilton†, Clark. *Class II.*—Braeuer; Pearse and Young, equal; Manny and Loenholm†, equal; French; Kneeland and Lawrence, equal; Walker (M. G.), Ross; Freeman and Mathewson (W.) and Gordon†, equal; Henry, Joseph. *Class III.*—Harris‡, Longworth, Dean, Younger; Cowan‡ and Davidson‡, equal; Dumaresq; Armour and Fox† and Ross†, equal; Allan and Dunsford and Allan‡ and Lane‡, equal; Lehman†; Ashby and McGillis (S.) and Wilkes and Corry†, equal; Hall and Oughtred and Evans‡, equal; Barlow (A.) and Davidson (D. A.) and Lumsden and McLaurin (B. M.), equal; Brown (V. L.) and Common and Hamilton‡, equal; Grossman and Ladd and McGillis (H. L.) and Scott, equal; Kinnear; McCaghey and Youngheart and Cattell‡ and England‡ and Greggs‡ and Mowat†, equal; Cameron and Lusk and Walker (H. F.) and Luscombe†, equal.

GERMAN.

Class I.—Roback, Martin. *Class II.*—Jackson and Muhlstock, equal; McInnis, Stewart, Going. *Class III.*—Joseph; Mathewson (W.) and Stewart‡, equal; Harris‡.

GERMAN—Beginners' Class.

Class I.—Goldblatt and Gronin, equal; Kert, Budyk. *Class II.*—Barlow (A. F.). *Class III.*—McCaghey, Barlow (W. D.), Quigley.

GREEK.

Class I.—Babcock. *Class II.*—Murray‡, French and Hyatt, equal; Cockfield, Mills‡, Lindsay, Muddell‡, Roback *Class III.*—McVittie, Percival and Muttitt‡, equal; Beckman‡, Johnson, Braeuer

‡ McGill University College of B.C., Vancouver.
† " " " Victoria.

GREEK—Beginners' Class.

Class I.—Cronin, Rivard. *Class II.*—None. *Class III.*—Proctor; Bradbury and Hatcher, equal; Davidson (W. L.) and Guy, equal; Osborne.

LATIN.

Class I.—Hamilton†; Babcock and Pearse and Gordon†, equal; Murray; Couture and French and Hyatt, equal; Bennett, Corry†. *Class II.*—Loenholm†; Clark and Cockfield, equal; Goldblatt and Gronin and Muddell‡, equal; McInnis and Lehman†, equal; Freeman and Lane‡, equal; Manny and Young, equal; Kert and Lawrence and Ross and Luscombe†, equal; Cowan‡; Drury† and Ross† and Mills‡, equal; Budyk and Longworth, and Mowat, equal; Ashby and Roback and Muttitt‡, equal; Henry and Walker (M. G.), equal; Gnaedinger and Jackson and Lindsay, equal; Johnson and Percival, equal; Allan. *Class III.*—McLaurin (C. E.); Joseph and McVittie and Stewart and Younger and McCree‡, equal; McLaurin (B. M.) and Coates†, equal; Logan† and Evans‡ and Reid‡, equal; Braeuer; Youngheart and Davidson‡ and Turnbull‡, equal; Kneeland and Oughtred and Stewart‡, equal; Ladd and Beckman‡ and Busby‡, equal; Brown and Dumaresq, equal; Thomson (A. K.); Campbell (W. N.) and Fox† and Hamilton‡, equal; Pedley and Scott and Dougan‡ and Harris‡, equal; Hall and Mathewson (J. A.), equal; Davidson (W. L.) and Dean and Thomson (H. F.), equal; Muhlstock and Robinson and Holland‡, equal; Cameron; Pennington and Cattell‡, equal; Hughes and Greggs‡, equal; Allan‡.

MATHEMATICS.

(1) Algebra.

Class I.—Babcock, McInnis, Muddell‡, Hyatt, Hamilton†, Lawrence; Bradbury and Davidson (W.) and Going and Pearse and Young, equal; Campbell (W.) and Loenholm†, equal; Reid‡; Wilkes and Lane‡, equal; Walker (H. F.); Walker (M. G.) and Ross, equal. *Class II.*—Cockfield, Goldblatt; Allan and Gnaedinger and Longworth, equal; Clark and Lehman† and Murray‡, equal; Bennett and Drury†, equal; Cowan‡, Green; Gronin and Manny and Youngheart and Gordon†, equal; Davidson (D.); Budyk and Kert and Inns, equal; Freeman; Johnson and Mathewson (J. A.) and Scott and Ross†, equal. *Class III.*—Dougan‡, Kirkpatrick‡; Lindsay and McCaghey and Ross‡, equal; Thomson (H. F.); Pedley and Percival and McVittie, equal; McLaurin (C.) and Pennington, equal; Kneeland and Corry† and Holland‡, equal; Ashby and Duguid and Richards and Mowat†, equal.; Grossman and Jones‡ and Barker‡, equal; McCree‡, Braeuer and Campbell (L.) and Henry and Muhlstock and Quigley and Davidson‡ and Beckman‡ and Luscombe†, equal; Hadrill and Robinson and Younger and Busby‡ and Stewart‡ and Paddon‡, equal; Stewart and Evans‡ and Logan†, equal; Barlow (A.) and Boright and Cameron and Dumaresq and Ellis and Lumsden and McLeod and Merrill and Coates† and Hartman† and Cattell‡ and Greggs‡ and Hamilton‡ and Mills‡ and Rogers‡ and Wilson‡ and Orme‡, equal.

‡ McGill University College of B.C., Vancouver.
† " " " Victoria.

(2) Trigonometry.

Class I.—Pearse, Goldblatt, Freeman, Ross, Going; McInnis and Hamilton†, equal; Kert, Longworth, Lawrence; Hyatt and Reid‡, equal; Bennett and Bradbury and Cockfield and Loenholm† and McCree‡, equal; Henry; Wilkes and Muddell‡, equal; Allan and Lane‡, equal; Babcock and Campbell (W.), equal; Budyk and Young, equal. *Class II.*—Scott; Boright and Atkins‡, equal; Inns and Walker (M. G.), equal; Mathewson (J. A.) and Campbell (L. M.), equal; Grossman and McLaurin (C. E.) and Cowan ‡and Stewart‡, equal; Gnaedinger and Manny and McLaurin (B.), equal; Ross† and Busby‡ and Ross‡, equal; Greggs‡, Thomson, (A.K.), Cameron, Corry†; Lummis and McVittie and Thomson (H. F.), equal. *Class III.*—Green and Kneeland and Youngheart and Gordon† and Lehman†, equal; Hadrill and Dougan‡ and Jones‡, equal; Brown and Hodgson and Luscombe† and Hartman†, equal; Clark and Lindsay and Davidson‡ and Kirkpatrick‡ and Murray‡, equal; Wilson‡, McCaghey, McLeod, Rogers; Dumaresq and Lumsden and McKay and Oughtred and Robinson and Logan† and Mills‡, equal; Barlow (A.) and Muhlstock and Quigley and Hamilton‡, equal; Davidson (D. A.) and Pennington, equal; Fox†; Richards and Mowat†, equal; Ashby and Percival, equal; Johnson (H. L.) and Smith (E. L.), equal; Duguid and Drury† and Muttitt‡ and Turnbull‡, equal; Mathewson (W.) and Pedley and Walker (H. F.) and Wilson and Younger and Cattell‡ and Orme‡ and Raynes‡, equal.

(3) Geometry.

Class I.—Hamilton†, Longworth, Young, Freeman; Davidson (W. L.) and Logan†, equal; Kert; Goldblatt and Ross, equal; Kirkpatrick‡, Budyk, Going; Barlow and Hatcher and Pearse and Dougan‡, equal; Gronin; Allan and Boright and Cockfield, equal; Wilkes, Hyatt, Gordon†; Lawrence and Richards, equal; Bennett and Kneeland and McInnis and McCree‡, equal. *Class II.*—Walker (H. F.); Stewart‡; Babcock and Robinson, equal; Gnaedinger and Davidson‡, equal; Common and McVittie and Walker (M. G.) and Murray‡ and Ross†, equal; Henry and Manny and Sawers‡, equal; Dumaresq and Loenholm† and Muddell‡, equal; Mathewson (J. A.) and Holland‡, equal; McLaurin (C. E.) and Hamilton‡ and Lane‡, equal; Ross‡ and Reid‡, equal. *Class III.*—Lumsden and Barrett‡ and Cattell‡ and Evans‡, equal; Pennington and Jones‡, equal; Clark, Youngheart; Brown and Lehman†, equal; Muhlstock and Percival, equal; Mathewson (F. S.); Scott and Rogers‡, equal; Campbell and Hall and Harvey, equal; McLeod and Drury†, equal; Lindsay and Mathewson (W.) and Mills‡, equal; Green; Cameron and Corry† and Mowat†, equal; Ashby and Fiske, equal; Greenwood and Oughtred and Busby‡, equal; Duguid and Quigley and Younger and Raynes‡, equal; Johnson and McCaghey and Thomson (H. F.) and England‡ and Harris‡, equal; Ellis and McLaurin (B. M.) and Stewart and Town and Patrick‡, equal; Davidson (D.) and Renaud and Thomson (A. K.) and Beckman‡ and Greggs‡ and Roberts†, equal.

‡ McGill University College of B.C., Vancouver.
† " " " Victoria.

PHYSICS.

Class I.—Couture; Cockfield and French, equal; Martin, Ross; Babcock and Wilson (W.), equal; Hamilton † Lawrence and McInnis, equal; Goldblatt and Gordon†, equal; Cameron and Going and Young, equal; Freeman and Kert and Loenholm†, equal; Longworth and Manny, equal; Hyatt, Cowan‡; Pearse and Lane‡, equal; Campbell (W.) and Robinson and McCree‡ and Muddell‡, equal; Joseph and Stewart‡, equal; Budyk and Corry†, equal. *Class II.*—Bennett; Logan† and Ross†, equal; Walker (H. F.) and Wilkes and Drury† and Luscombe† and Greggs‡, equal; Brown (V. L.) and McVittie, equal; Davidson (W.) and Murray‡, equal; Walker (M. G.); Holden and Inns and Lindsay, equal; Thomson (H. F.); McLaurin (C. E.) and Richards and Youngheart and Holland‡, equal; Hall; Muhlstock and Fox†, equal; Busby‡ and Dougan‡, equal; Ashby and Green and Mathewson (J. A.) and McCagher and McLaurin (B. M.) and Atkins‡ and Roberts† and Kirkpatrick‡, equal. *Class III.*—Henry, Kneeland; Kinnear and Hartman†, equal; Hamilton‡; Dean and Dumaresq, equal; Allan and Campbell (L. M.) and Smith and Evans‡, equal; Gnaedinger and Johnson and Davidson‡ and Mowat†, equal; Lehman†, McLeod, Oughtred; Bradbury and Younger and Harris‡, equal; Allan‡; Pennington and Mills‡, equal; Davidson (D.); Boright and Ross‡, equal; Alguire and Osborne, equal; Fiske and Grossman and Coates† and Barrett‡, equal; Braeuer and Ellis and Hadrill and Stewart, equal; Lumsden and McGillis (S. B.) and Beckman‡ and Muttitt‡ and Turnbull‡, equal; Jones‡ and Wilson‡ and Orme‡ and Barker‡, equal.

PHYSICAL AND COMMERCIAL GEOGRAPHY.

Class I.—None. *Class II.*—Mathewson. *Class III.*—Alguire.

‡ McGill University College of B.C., Vancouver.
† " " " Victoria.

McGill University

SESSIONAL EXAMINATIONS, 1908-1909.

Faculty of Applied Science

FOURTH YEAR (GRADUATING CLASS)

HONOURS.

(In alphabetical order.)

Bradshaw, Walter Everett.—Honours in Bridge Design.
Cantley, Charles Lang—Prize for the best paper of the year in the Mining Section, Canadian Society of Civil Engineers.
Conway, Edmund John—Honours in Metallurgical Design; Hersey Prize for Summer Essay.
Coulin, Louis Auguste.—Honours in Railway Engineering.
Dwight, Herbert Bristol—British Association Medal and Prize; Honours in Electrical Engineering, Mechanical Engineering and Thermodynamics; Fourth Year British Association Prize.
Edwards, Godfrey Basil—Honours in Thermodynamics.
Fox, Charles Harry—Honours in Railway Engineering.
Johnston, Harold Stanley—Honours in Railway Engineering.
Kennedy, W. Alan—Honours in Chemical Laboratory.
Ker, Frederick Innes—Honours in Railway Mechanical Engineering
Lindsay, Alexander Mollison.—Honours in Thermodynamics.
McKnight, Will Falconer.—Honours in Electrical Engineering Laboratory and Thermodynamics; Frist Prize for paper read before the Undergraduates' Society of Applied Science.
McKinnon, Kenneth Royal—British Association Medal and Prize; Honours in Mechanical Engineering and Thermodynamics; Fourth Year British Association Prize.
McLean, Douglas Lauchlin—British Association Medal and Prize; Honours in Electrical Engineering.
Mulock, Redford Henry.—Prize for the best paper of the year in the Electrical Section of the Canadian Society of Civil Enginneers; Prize for Summer Essay.
Sailman, Robert Thomas Heathfield—Honours in Railway Engineering; Greenshields' Prize for Summer Essay; Second Prize for paper read before the Undergraduates' Society of Applied Science.
Smith, George W.—Honours in Railway Engineering.
Soper, Arthur John—Honours in Electrical Engineering.
Stansfield, Maurice—Prize for Summer Essay.
Stewart, Leighton—Honours in Mining; Drummond Prize for Summer Essay.
Yuill, Harry Hogg—British Association Medal and Prize; Honours in Chemical Laboratory and Mining Machinery.

PASSED FOR THE DEGREE OF BACHELOR OF ARCHITECTURE.

(In order of merit.)

Dowswell, Harry Royden
Fetherstonhaugh, Harold Lea } equal.
Irwin, John Wilson }

PASSED FOR THE DEGREE OF BACHELOR OF SCIENCE

(In order of merit.)

IN ARCHITECTURAL ENGINEERING.

McDougall, J. Cecil
Byrne, John Herbert

IN CHEMISTRY.

Baillie, Archibald F. } equal.
Cheesbrough, A. Gordon }
Letourneau, Marius
Descarries, Joseph A.

IN CIVIL ENGINEERING.

McLean, Douglas Lauchlin
Smith, George W.
Fox, Charles Harry
Sailman, Robert Thomas Heathfield
Bradshaw, Walter Everett
Dennis, W. Melbern
Dawson, Frederick James
Powell, William Hall
Johnston, Harold Stanley
Bronson, Frederic Erskine
Montague, T. Mortimer
Russell, Benjamin
Layton, Shirley Thompson
Heywood, Edward Percival
Dickson, Garnet Horace
DeLancey, James Arnold
Burbidge, George Harrison
Ross, Charles Cathmer

Unranked.

Baylis, Harold A.
Brown, Lindsay Osborne
Stavert, W. D.

IN ELECTRICAL ENGINEERING.

Dwight, Herbert Bristol
Lindsay, Alexander Mollison
Mulock, Redford Henry

Soper, Arthur John
McKnight, Will Falconer
Smith, Stanley Morse
Briggs, Arthur Francis Mayou
Edwards, Godfrey Basil
Dickieson, Arthur Logan
Cate, Carrol Lee
Trotter, Clifford Thackwell
Hague, Owen Carsley Frederic
Gall, Douglas Meikle
Fraser, Archibald Norman
Allen, Leslie Wilbur
Briegel, Water Oscar
Wilson, Alexander
Murphy, A.A., B.Sc. (Queen's)

Unranked.

Lundy, Thomas Holmes Day
Davies, Harold Cameron, B.Sc.

IN MECHANICAL ENGINEERING.

McKinnon, Kenneth Royal
Ford, Walter Stimson
Robb, Charles Alexander
Stansfield, Maurice
Goode, John Dudley
Grove, Humphrey Shakespear
Richardson, Charles Edward
Spencer, Walter Hutchins, B.Sc.
Renaud, Bruce Gordon

IN METALLURGY.

Conway, Edmund John
Saunders, Charles William McIlroy
Brunton, Frederic Kemble

IN MINING ENGINEERING.

Yuill, Harry Hogg
Stewart, Leghton
Kennedy, William Alan
Rider, Ezra Byron
Hilborn, Percy Richard
Nairn, John Spencer
Cantley, Charles Lang
O'Neill, John Johnson
Babson, George Low
Galbraith, William John
Drysdale, Charles Wales
Sutherland, Luther Holton Dunbar
Winslow, Rainsford-Hannay
Wisdom, Stuart
Eakins, James Macdonald

IN RAILWAY ENGINEERING.

Ker, Frederic Innes
Coulin, Louis Auguste

THIRD YEAR

PRIZES.

(Names in alphabetical order.)

Burland, George Lewis—Prize for Summer Essay (Mining).
Cowles, Eugene Pomeroy—Prize for General Proficiency (Department of Mining Engineering).
Dennis, T. Clinton—Third Mathematical Entrance Prize.
Farnsworth, Charles Albert—Second Prize for General Proficiency (Department of Civil Engineering).
Fisher, Seymour J.—First Prize for General Proficiency (Department of Mechanical Engineering.)
Gilchrist, Thomas Ernest—First Mathematical Entrance Prize.
Harris, Norman Charles—Second Prize for General Proficiency (Department of Mechanical Engineering).
Macdonald, Jeremiah James—First Prize for Surveying and Levelling. First Prize for General Proficiency (Department of Civil Engineering).
Magrath, Charles Bolton—Second Mathematical Entrance Prize.
Price, Thomas Ernest—Second Prize for Surveying and Levelling.

PASSED THE SESSIONAL EXAMINATIONS.

(In order of merit.)

IN ARCHITECTURAL ENGINEERING.

Dowie, Kenneth William, Lachine, Que.
*Reid, Archibald C., Winnipeg, Man.

IN ARCHITECTURE.

Paine, Arthur James Carman, Lower Island Cove, Nfld.
Kingston, John Lyndhurst, Ottawa, Ont.
Blanchard, Edward Stirling,Charlottetown, P.E.I.

IN CIVIL ENGINEERING.

Macdonald, Jeremiah James, Vernon River, P.E.I
Farnsworth, Charles Albert, Sawyerville, Que.
Price, Thomas Ernest, Vancouver, B.C.
Sproule, Stanley Macquana, Montreal, Que.
Small, Frank S., Collina, N.B.
Hattie, James Blake, Caledonia, N.S.
Cowley, Arthur Thomas Noel, Winnipeg, Man.
Stewart, Robert Bruce, Strath Gartney, P.E.I.
Jost, Leslie Gordon, Guysboro, N.S.
Smith, Albert W., Coverdale, N.B.

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* To pass supplemental examinations.

Dennis, T. Clinton, O'Leary, P.E.I.
*Colter, Ashley Alexander, Keswick, N.B.
*Dakin, Frederick W., Westmount, Que.
Anderson, Goldie Fraser, Vancouver, B.C.
Robertson, William Scott, Notre Dame de Grace, Que.
*Menzies, John Whyte, Ottawa, Ont.
Cloran, Joseph Harry D., Westmount, Que.
*deHart, Joseph Bertram, London, England.
Bennet, George Arthur, New Glasgow, Que.
Cole, Francis Thornton, Montreal, Que.
*von Pozer, Charles Henry, Beauce, Que.
*Ryley, Alfred St. Clair, Ottawa, Ont.
*Narraway, Athos Maxwell, Ottawa, Ont.
*Ewart, Douglas Marsden, Ottawa South, Ottawa, Ont.
Wyman, John Kirby, Rockland, Ont.
*Bambrick, Heber, Vancouver, B.C.
*Goodstone, Arthur Simon, Montreal, Que.
*Daubney, Charles Bruce, Ottawa, Ont.
*Trench, Alfred Saward Chevenix, Camberley, England.

IN ELECTRICAL ENGINEERING.

*Boright, George Kenric, Montreal, Que.
McHenry, Morris James, London, Ont.
Gill, Peter Clark, Victoria, B.C.
Ferrier, Tyrrell, Chatham, England.
Gilchrist, Thomas Ernest, Ottawa, Ont.
Needham, Robert James, London, Ont.
Reid, Rupert Haddington, Sault Ste. Marie, Ont.
*McNaughton, Andrew G. L., Moosomin, Sask.
Vroom, Harold Heard, St. Stephen, N.B.
MacAfee, Ralph Evans, Millstream, N.B.
Dawes, Andrew Sidney, Montreal, Que.
*MacDiarmid, Archibald Alexander, Covey Hill, Que.
*Kohl, George Hutton, Montreal, Que.
Fregeau, John Henry, Three Rivers, Que.
*Macdonald, James Harrison, Claresholm, Alta.
*Scott, Robert William, Queenstown, S. Africa.

IN MECHANICAL ENGINEERING.

Fisher, Seymour J., Burlington, N.S.
Harris, Norman Charles, Melbourne, Australia.
Magrath, Charles Bolton, Lethbridge, Alta.
*Daubney, James Edwin, Ottawa, Ont..
Beagley, Thomas George, Montreal, Que.
*Lomer, Gerald Bell, Montreal, Que.
*Dobson, Arthur Alexander, Fordwich, Ont.
*Adrian, Robert Wilson, St. John's, Nfld.
*Blackett, Victor St. Clair, Glace Bay, N.S.

IN MINING ENGINEERING.

Cowles, Eugene Pomeroy, Montreal, Que.
*Gibbins, Gwynn Gilbert, Vancouver, B.C.
Fowler, Frank Scott, Winnipeg, Man.

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* To pass Supplemental Examinations.

*Ayer, Kenneth Roger, Westmount, Que.
Brown, Osburn Nicholson, Newcastle, N.B.
Cox, John Raffles, Montreal, Que.
Strong, Horace R. F., Cambria, Que.
*McLeod, John William, Scotsburn, N.S.
*Rutherford, John Reginald, Pictou, N.S.
*McLean, Calvin S., St. John, N.B.
*Burland, George Lewis, Ottawa, Ont.
*Archibald, Max Stanfield Eaton, Truro, N.S.
*Meek, Victor M., Port Stanley, Ont.

IN RAILWAY ENGINEERING.

McNab, Lewis Grant, Montreal, Que.
Clark, Albert William Gardner, Valleyfield, Que.
*Popham, John Francis Watson, London, England.
*Slingsby, Henry, York, England.

SECOND YEAR

PRIZES.

(In alphabetical order.)

Dodd, Geoffrey Johnstone—Third Scott Prize.
Linagh, Ronald King—Second Scott Prize; First Prize for General Proficiency.
Scrivener, Robert Massey—Scott Exhibition; Second Prize for General Proficiency.

PASSED THE SESSIONAL EXAMINATIONS.

(In order of merit.)

IN ARCHITECTURE.

*MacDonald, George Heath, Murray Harbour North, P.E.I.
*Peck, Hugh A., Montreal, Que.
*Hawkins, Stuart Schofield, Ottawa, Ont.

OTHER COURSES.

Linagh, Ronald King, Montreal, Que.
Scrivener, Robert Massey, Hay, N.S.W., Australia.
Sankey, Sydney John, Wolverhampton, England.
Willis, George Christopher, Toronto, Ont.
Carnwath, James, Riverside, N.B.
Dodd, Geoffrey Johnstone, Jamaica, B.W.I.
*deGruchy, Charles Southwell, Montreal, Que.
Murray, George Ernest, Ottawa, Ont.
Ivey, Charles Herbert, London, Ont.
Gregory, Philip Stancliffe, Fredericton, N.B.
Oughtred, Lawrence William, Marbleton, Que.
Morkill, Frank Edward, Lima, Peru.

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* To pass Supplemental Examinations

Wood, Douglas Fletcher, Westmount, Que.
Foster, Francis William, Montreal, Que.
Ray, Hugh Percy, Westmount, Que.
Staveley, Walter D., Montreal, Que.
Johnston, Robin Louis, St. John, N.B.
Gnaedinger, Cedric Walter, Montreal, Que.
Briercliffe, Henry Carle Dyson, Richland P.O., Man.
*Stevenson, Edward Peel, Streatham, London, Eng.
Falcke, Joseph, Cape Town, S.A.
*Forbes, Duncan Stuart, Montreal, Que.
Wilson, R. Starr Leigh, Lunenberg, N.S.
Clarke, Raymond Brooke, Jamaica, B.W.I.
Boast, Richard Griffith, Richmond, Que.
Forman, Edmund George Hill, Port of Menteith, Scotland.
Archibald, Ernest Bryden, Montreal, Que.
Smith, William Plumb, Montreal, Que.
Walker, George Henry Pearson, Saskatoon, Sask.
Watson, Hugh Monroe, Montreal, Que.
Pengelley, Walter Gordon, Jamaica, B.W.I.
Walcott, William Hollingsed, Barbados, B.W.I.
*Murphy, William Herbert, Montreal, Que.
*Robinson, Duncan Strachan, Toronto, Ont.
*Cushing, Arthur G., Montreal, Que.
*Hooper, J. Harold, North Milton, P.E.I.
*Bacon, Thomas Hamilton, Montreal, Que.
*McDonald, Percy Ellicott, Hamilton, Ont.
Kingsley, Edward Robert, Lindsay, Ont.
*Koch, Ernest Christian, Westmount, Que.
*Glasmacher, Walter Augustine, Ottawa, Ont.
*Holland, Francis Chaplin, Leamington, England.
Gillies, Clyde Campbell, Toronto, Ontario.
*Richardson, Creighton Elliott, Montreal, Que.
*Collier, Harold Fetherstonhaugh, Montreal, Que.
*Evans, Alfred James Lawrence, Quebec, Que.
*Elliott, Fergus Edgar, Montreal, Que.
*O'Leary, Frederick James, Laggan, Alta.
*Brebner, William Inniss, British Guiana, South America.
Wilson, Thomas Edgar, Langley, B.C.
*Ovalle, Nestor Keith, Long Island, N.Y.
*Ross, Wallace Gordon, Montreal, Que.
*Henry, Robert Alexander Cecil, Calgary, Alta.
*Dennison, Lawrence George, Westmount, Que.

Unranked.

(In alphabetical order.)

*Bisson, Leonard, Hull, Que.
Millican, Alonzo Gordon, St. John, N.B.
*Penney, Edgar, Carbonear, Nfld.
Porter, Cecil George, St. John, N.B.
*Williams, Francis George Maxwell, Bath, England.
Wood, Harold Whitney, Montreal, Que.

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* To pass Supplemental Examinations.

FIRST YEAR

PRIZES.

(In alphabetical order.)

Heurtley, Ernest S.—First Prize for General Proficiency.
McRae, Joseph Percy.—Third Fleet Prize (Shopwork).
Peden, Ernest—Prize for General Proficiency.
Randolph, Thomas Glanville—First Fleet Prize (Shopwork).
Schippel, Henry Frederick—Prize for General Proficiency.
Smith, Briton Oliver—Second Fleet Prize (Shopwork).
Stroud, Wallace Douglas—Second Prize for General Proficiency.
Tebbutt, Oswold Neville—Prize for General Proficiency.

PASSED THE SESSIONAL EXAMINATIONS.

(In order of merit.)

IN ARCHITECTURE.

*Richards, Hugh A., Ottawa, Ont.
*McKay, Allan Grant, Westmount, Que.

OTHER COURSES.

Heurtley, Ernest S., Pulborough, England.
Stroud, Wallace Douglas, Montreal, Que.
Schippel, Henry Frederick, Montreal, Que.
Peden, Ernest, Montreal West, Que.
Tebbutt, Oswold Neville, Cambridge, England.
Hayward, John Gray, Brockville, Ont.
Gass, Laurence Henderson, Montreal West, Que.
Randolph, Thomas Granville, Frome, England.
Shaw, Douglas A., Montreal, Que.
Cameron, Alan Emerson, Ottawa, Ont..
Cohen, Moise Jacques, Vancouver, B.C.
Jelly, Ernest M., Carleton Place, Ont. } equal.
Davis, John Caswell, Montreal, Que. }
Norris, J. H. Ilyard, Montreal, Que.
May, William Taylor, Ottawa, Ont.
Ryan, Edward A., Montreal, Que.
Macleod, Donald L., Summerside, P.E.I.
Cummer, Robert Lockman, Hamilton, Ont.
DesRosiers, Arthur, Montreal, Que.
Hugh-Jones, Evan B., Wrexham, N. Wales.
Futterer, Edward, Albany, N.Y.
Bell, Donald A. S., Ottawa, Ont.
Duggan, Herrick Stevenson, Sydney, C.B.
*Weir, James, Saskatoon, Sask.
Barnes, Frank, Port Hope, Ont.
Boyd, Winnette W., Bobcaygeon, Ont.
Saunders, Rodney Vernon, Sandy Cove, N.S.
Skelton, Ralph, Montreal, Que.
Salter, John Norman, Carleton Place, Ont.

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* To pass Supplemental Examinations.

Casey, Joseph Felix, Montreal, Que.
Robb, James Bruce, Westmount, Que.
Hutchins, George R., Montreal, Que.
*Kearns, James A., Montreal, Que.
Hall, Edward Patterson, Quebec, Que.
*McRae, Joseph Percy, Ottawa, Ont.
Biddulph, Richard H. H., Reading, England } equal.
Hanington, Arthur E. W., Ottawa, Ont. }
*Burr, Arthur Vibert, Bloomfield, Ont.
*Kirby, Sidney S., Ottawa, Ont. } equal.
Weber, K. Rudolph, Montreal, Que. }
*Heward, Francis S. B., Montreal, Que.
*Johnson, Geoffrey Alan, Ottawa, Ont.
Warburton, James Arthur, Charlottetown, P.E.I.
*Hyman, William Samuel, Gaspe, Que.
Lefebvre, Eugene, Montreal, Que.
Calkins, Harold Almon, Montreal, Que.
*MacDermot, Edward C., Montreal, Que.
Robertson, Charles, Brantford, Ont.
Elliott, Allan Johnston, Montreal, Que.
*Lapp, Frank Wilbert, Cobourg, Ont.
*Ogilvie, James Carter, Cork, Ireland.
*McMahon, James Walsh, St. Albans, Vt.
Fay, Leonard William, Knowlton, Que.
*Barnaby, Hazen O., St. John, N.B.
*Brown, Michael J., Montreal, Que. } equal.
*Hadley, Clifford D., Montreal, Que. }
*Starke, Henry MacDermott, Rochester, N.Y.
Hodgson, Angus White, Montreal, Que.
*Edwards, Herbert Laurence, Ponoka, Alta.
*Rolland, Herman J., Montreal, Que.
*Lynch, James Alsop, Barbados, B.W.I.
*Mather, Richard Henry, Ottawa, Ont.
Boyd, Thornton B., Bobcaygeon, Ont.
*Sherman, John James, Hawkesbury, Ont.
*Turnbull, Alan, Hamilton, Ont.
*Goode, Thomas Gerald, Westmount, Que.
*Bonyun, W. Austin, Trinidad, B.W.I. } equal.
Downes, Michael A., Montreal, Que. }
*Reinhardt, Ernest A., Westmount, Que.
*Wilson, William Bowman, Ottawa, Ont.
*McLeod, Clement Kirkland, Montreal, Que.
*Thomas, Harold C., Coaticooke, Que.

Unranked.

(In alphabetical order.)

Allwood, Frank Harold, Chapelton P.O., Jamaica, B.W.I.
*Anderson, John Rogerson, Halifax, N.S.
Armstrong, John Douglas, Ottawa, Ont.
*Austin, Morris, Montreal, Que.
*Binks, Norbert Trevette, Ottawa, Ont.
Bolton, Philip L., St. Lambert, Que.
*Campbell, Colin, Ottawa, Ont.

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* To pass Supplemental Examinations.

*Cassels, Wescotte L., Lyttleton, Ottawa, Ont.
*Christie, John Edward, Lachute, Que.
Crockett, Thomas Jackson, Danville, Que.
*Darling, Gordon, Montreal, Que.
*Dixon, Walter Underwood, Montreal, Que.
*Fortier, Frank Albert, Westmount, Que.
*Gall, Arthur, Montreal, Que.
Garth Charles Holmes, Rosemere, Que.
Gnaedinger, F. Theo., Westmount, Que.
*Gohier, Joseph Ernest, St. Laurent, Que.
*Gorman, T. Clarence, Ottawa, Ont.
Green Frederick Douglas Leach, Mexico.
*Johnson, Roland C., Renfrew, Ont.
Kelly Albert John, Edmonton, Alta.
*Legris, Joseph A., Louiseville, Que.
*Lesage, George William, Montreal, Que.
*Lipsey, Joseph, Montreal, Que.
*Locklart, Earle Anthony, Montreal, Que.
McCanmon, John Whyte, Inverness, Que.
*McDougall, Roderic Joseph, Vankleek Hill, Ont.
McGannon, Edward Matthew, Brockville, Ont.
*Malloy, George Edward Leigh, Bowmanville, Ont.
*Nares Hilary George, Winnipeg, Man.
*Oliver, Stuart Erskine, Quebec, Que.
Philips, Campbell, Westmount, Que.
*Plancie, Clifford Carlyle, Cookshire, Que.
*Rennoldson, David B., Montreal, Que.
*Roy, James Louis, Bedford, N.S.
*Sargent, Albert Elbridge, Westmount, Que.
*Scott, Allen Nye, Ottawa, Ont.
*Seath J. Marshall, Montreal, Que.
*Shanly, Coote Nisbitt, Montreal, Que.
*Skelton, Philip H., Montreal, Que.
*Thompson, Norman A., Coaticooke, Que.
Webb, Edward Mitchell, Montreal, Que.
Willis Frank Strachan, Westmount, Que.
Wood James Russell, Peterboro, Ont.
*Woodyatt, Charles Frederick Korlum, Brantford, Ont.

STANDING IN THE SEVERAL SUBJECTS.

(1) *STUDENTS IN ARCHITECTURE.*

ARCHITECTURAL DRAWING.

First Year.—Class I.—None. *Class II.*—Richards, McKay.

ARCHITECTURE (Building Construction).

Second Year.—Class I.—MacDonald, Peck. *Class II.*—Richardson. *Class III.*—Hawkins.

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* To pass Supplemental Examinations.

ARCHITECTURE (Descriptive Geometry.)

Third Year.—*Class I.*—None. *Class II.*—Paine, Kingston. *Class III.*—Blanchard.
First Year.—*Class I.*—None. *Class II.*—Richards, McKay.

ARCHITECTURAL DESIGN.

Fourth Year.—(*Class C.*)—*Class I.*—Dowswell. *Class II.*—Fethertonhaugh, Irwin.
Third Year.—(*Class B.*)—*Class I.*—MacDonald. *Class II.*—Kingston and Paine, equal.
Second Year.—(*Class A.*)—*Class I.*—None. *Class II.*—Blanchard, Peck. *Class III.*—Richardson, Hawkins.

ARCHITECTURAL DRAWING.

Third Year.—*Class I.*—Kingston and Paine, equal. *Class II.*—Blanchard.

ARCHITECTURAL DRAWING (HISTORY OF).

Fourth Year.—*Class I.*—None. *Class II.*—Dowswell and Fethertonhaugh, equal; Irwin.
Third Year.—*Class I.*—None. *Class II.*—Kingston and Paine, equal. *Class III.*—Blanchard.
Second Year.—*Class I.*—None. *Class II.*—MacDonald, Richardson, Hawkins. *Class III.*—Peck.

ARCHITECTURE (ELEMENTS OF).

Second Year.—*Class I.*—MacDonald. *Class II.*—Richardson, Hawkins, Peck.

ARCHITECTURE (ENGLISH).

First Year.—*Class I.*—None. *Class II.*—None. *Class III.*—*Richards.*

ARCHITECTURE (ESSAY).

Third Year.—*Class I.*—Paine. *Class II.*—Kingston, Blanchard.
Second Year.—*Class I.*—Hawkins. *Class II.*—MacDonald, Richardson, Peck.

ARCHITECTURE (FREEHAND DRAWING.)

Second Year.—*Class I.*—Peck, MacDonald. *Class II.*—None. *Class III.*—Richardson, Hawkins.
First Year.—*Class I.*—None. *Class II.*—McKay. *Class III.*—Richards.

ARCHITECTURE (HISTORY).

First Year.—*Class I.*—None. *Class II.*—None. *Class III.*—McKay and Richards, equal.

ARCHITECTURE (HISTORY OF).

Fourth Year.—Class I.—None. *Class II.*—Fetherstonhaugh; Dowswell and Irwin, equal.
Third Year.—Class I.—None. *Class II.*—Paine, Blanchard, Kingston.
Second Year.—Class I.—None. *Class II.*—MacDonald, Peck, Richardson. *Class III.*—Hawkins.

ARCHITECTURE (HYGIENE).

Fourth Year.—Class I.—None. *Class II.*—Dowswell, Irwin, Fetherstonhaugh.

ARCHITECTURE (MAPPING.)

Second Year.—Class I.—None. *Class II.*—MacDonald, Peck. *Class III.*—Richardson, Hawkins.

ARCHITECTURE (MATHEMATICS).

Second Year.—Class I.—None. *Class II.*—None. *Class III.*—Peck.
First Year.—Class I.—None. *Class II.*—None. *Class III.*—Richards.

ARCHITECTURE (MODERN).

Fourth Year.—Class I.—Irwin, Dowswell, Fetherstonhaugh.

ARCHITECTURE (ORNAMENT AND DECORATION.)

Third Year.—Class I.—None. *Class II.*—Kingston, Paine. Blanchard.
Second Year.—Class I.—MacDonald. *Class II.*—Hawkins, Peck, Richardson.

ARCHITECTURE (PERSPECTIVE RENDERING.)

Third Year.—Class I.—None. *Class II.*—None. *Class III.*—Blanchard, Kingston, Paine.

ARCHITECTURE (PHYSICS).

First Year.—Class I.—None. *Class II.*—Richards.

ARCHITECTURE (PHYSICS LABORATORY).

First Year.—Class I.—McKay.

ARCHITECTURE (PROFESSIONAL PRACTICE.)

Fourth Year.—Class I.—Dowswell. *Class II.*—Fetherstonhaugh, Irwin.

ARCHITECTURE (SPECIFICATIONS).

Third Year.—Class I.—Paine. *Class II.*—Kingston. *Class III.*—Blanchard.

ARCHITECTURE (STRUCTURAL ENGINEERING.)

Fourth Year.—*Class I.*—Dowswell. *Class II.*—Irwin, Fetherstonhaugh.
Third Year.—*Class I.*—None. *Class II.*—Paine, Kingston. *Class III.*—Blanchard.

ARCHITECTURE (SURVEYING.)

Second Year.—*Class I.*—None. *Class II.*—None. *Class III.*—MacDonald.

ARCHITECTURE (THEORY OF DESIGN).

Third Year.—*Class I.*—Paine, Kingston, Blanchard.

ARCHITECTURE (THEORY PLANNING).

Fourth Year.—*Class I.*—None. *Class II.*—Fetherstonhaugh, Dowswell, Irwin.

ARCHITECTURE (THESIS.)

Fourth Year.—*Class I.*—Dowswell, Irwin. *Class II.*—Fetherstonhaugh.

(2) *STUDENTS IN THE ARCHITECTURAL ENGINEERING COURSE.*

ARCHITECTURAL ENGINEERING (ARCH. DESIGN).

Fourth Year.—*Class I.*—McDougall. *Class II.*—None. *Class III.*—Byrne.
Third Year.—*Class I.*—Dowie. *Class II.*—None. *Class III.*—Reid; Gladman and Little, equal.

ARCHITECTURAL ENGINEERING (BUILDING CONSTRUCTION.)

Third Year.—*Class I.*—Dowie. *Class II.*—Reid. *Class III.*—Little, Gladman.

ARCHITECTURAL ENGINEERING (DESCRIPTIVE GEOMETRY).

Third Year.—*Class I.*—Dowie. *Class II.*—None. *Class III.*—Little and Reid, equal; Gladman.

ARCHITECTURAL ENGINEERING (DETAILING).

Third Year.—*Class I.*—Dowie. *Class II.*—Little, Reid, Gladman.

ARCHITECTURAL ENGINEERING (ELEMENTS OF ARCHITECTURE).

Third Year.—*Class I.*—Dowie. *Class II.*—Gladman; Little and Reid, equal.

ARCHITECTURAL ENGINEERING (ESSAY).

Third Year.—*Class I.*—Little and Reid, equal. *Class II.*—Dowie and Gladman, equal.

ARCHITECTURAL ENGINEERING (HISTORY OF ARCHITECTURE).

Fourth Year.—*Class I.*—None. *Class II.*—McDougall. *Class III.*—Byrne.
Third Year.—*Class I.*—None. *Class II.*—Dowie. *Class III.*—Gladman, Reid.

ARCHITECTURAL ENGINEERING (HISTORY OF ARCHITECTURAL DRAWING).

Fourth Year.—*Class I.*—None. *Class II.*—None. *Class III.*—Byrne and McDougall, equal.
Third Year.—*Class I.*—Dowie. *Class II.*—None. *Class III.*—Gladman and Reid, equal; Little.

ARCHITECTURAL ENGINEERING (HYGIENE).

Fourth Year.—*Class I.*—None. *Class II.*—Byrne, McDougall.

ARCHITECTURAL ENGINEERING (MODERN ARCHITECTURE).

Fourth Year.—*Class I.*—None. *Class II.*—Byrne, McDougall.

ARCHITECTURAL ENGINEERING (MUNICIPAL ENGINEERING).

Third Year.—*Class I.*—None. *Class II.*—Dowie. *Class III.*—Little, Reid, Gladman.

ARCHITECTURAL ENGINEERING (PROFESSIONAL PRACTICE).

Fourth Year.—*Class I.*—None. *Class II.*—McDougall, Byrne.

ARCHITECTURAL ENGINEERING (STRUCTURAL DESIGN).

Fourth Year.—*Class I.*—McDougall. *Class II.*—Byrne.
Third Year.—*Class I.*—Dowie, Reid. *Class II.*—Little. *Class III.*—Gladman.

ARCHITECTURAL ENGINEERING (STRUCTURAL ENGINEERING).

Third Year.—*Class I.*—Dowie. *Class II.*—Reid. *Class III.*—Little, Gladman.

ARCHITECTURAL ENGINEERING (THEORY PLANNING).

Fourth Year.—*Class I.*—None. *Class II.*—McDougall, Byrne.

ARCHITECTURAL ENGINEERING (THESIS).

Fourth Year.—*Class I.*—None. *Class II.*—Byrne, McDougall.

(3) *STUDENTS IN OTHER COURSES.*

A. C. MACHINERY.

Fourth Year (*Electrical Course*).—*Class I.*—McKnight; Dwight and Smith (S. M.), equal; Mulock and Soper, equal. *Class II.*—Davies, Wilson, Trotter, Cate; Edwards and Lindsay, equal. *Class III.*—Murphy, Briggs, Lundy, Dickieson, Gall, Dion; Allen and Briegel and Fraser and Slavin, equal.

Fourth Year (*Mechanical Course*).—*Class I.*—McKinnon. *Class II.*—Goode. *Class III.*—Ford and Robb, equal; Grove, Stansfield Robertson, Richardson.

ASSAYING.

Third Year.—*Class I.*—Cowles, (E. P.) Ayer; Cox and McLeod, (J. W.) equal. *Class II.*—Durant, Fowler, Simpson, Archibald, (M. S. E.;) Haultain and Stuart (A. G.), equal; Brown, Strong, Brunton; McLean (C. S.) and Rutherford, equal; Gibbins and MacFarlane and Sanderson, equal; Elkins. *Class III.*—Maltby and Penney, equal; Porter, Burland, Meek, Baylis (M. E.), Pearce.

CHEMICAL ANALYSIS.

Fourth Year.—*Class I.*—Letourneau. *Class II.*—Conway. *Class III.*—Saunders, Descarries, Brunton.

CHEMISTRY (ANALYTICAL).

Fourth Year.—*Class I.*—None. *Class II.*—None. *Class III.*—Letourneau, Descarries.

Third Year.—*Class I.*—Boright, MacAfee; Ferrier and McHenry, equal. *Class II.*—Gilchrist, Powis; Gill and Jackson, equal; Kohl, Scott (R.W.), Reid (R.H.), Ross; Dawes and Vroom, equal; McDiarmid and Macdonald (J. H.), and Williamson, equal. *Class III.*—Needham, McNaughton; Callander and Townshend, equal; Alford, Vinet, Fregeau.

CHEMISTRY (ORGANIC).

Fourth Year.—*Class I.*—Baillie. *Class II.*—Cheesborough.

Third Year.—*Class I.*—None. *Class II.*—None. *Class III.*—Robertson.

CHEMISTRY (PHYSICAL).

Fourth Year.—*Class I.*—None. *Class II.*—Baillie, Cheesborough. *Class III.*—Descarries.

CHEMISTRY (QUALITATIVE ANALYSIS).

Third Year.—*Class I.*—Cowles, Simpson; Brunton and Gibbins, equal. *Class II.*—Brown and Illievitz, and Rutherford equal; Fowler; Archibald and McLean, equal; Ayer, Elkins, Sanderson; Macfarlane and Penney and Stuart (A. G.), equal; Meek. *Class III.*—Haultain; Burland and Cox, equal; Pearce, Maltby, Strong, Williams, Fox.

Second Year.—*Class I.*—None. *Class II.*—Macaulay, Gillies, (G. A.)

CHEMISTRY.

Second Year.—*Class I.*—Willis (G. C.), Hooper, Scrivener; Carnwath and Murray and Smith (W. P.), equal; Galloway (J.D.), and Linagh, equal; Dodd, Bacon, Robinson. *Class II.*—Clark and Gregory, equal; Oughtred and Sankey, equal; Evans and Ivey, equal; Falcke and Gnaedinger and Holland, equal; Morkill and Walker, equal;

Brotherhood and Foster and Watson, equal; Wilson (R. S. L.) and Wood (D. F.), equal; Macaulay and Ray, equal; Murphy; Briercliffe and de Gruchy and Forman and Johnston (R. L.), equal; Staveley and Stevenson, equal; Archibald and Collier and Glasmacher, equal; Alward and Boast, equal; Kingsley and McDougall, equal; Pengelley, Webb; Austin and Forbes and Gillies and Richardson, (C. E.), equal; Millican. *Class III.*—Elliott; Beauvais and Child, equal; Koch, Cram; Brebner and Dixon and Gall, equal; McDonald and Thompson, equal; Darling and Gorman and Nares, equal; Cushing; Christie and Legris (J. A.), and Oliver, equal; O'Leary; Fortier and Irwin, equal; Flewin and Lipsey and Lockhart, equal; Hasbrouck and Mallory and Scott, equal; Allwood and Anderson (J. R.) and Kelly, equal; Shanly and White, equal; Bolton and Ralston, equal; Planche; Anderson (J. G.), and Walcott, equal.

COLLOQUIUM.

Fourth Year.—Class I.—Cantley and Stewart, equal. *Class II.*—Yuill; Babson and Conway, equal; Galbraith, Gillis, Eakins, Hilborn, O'Neill, Rider, Kennedy. *Class III.*—Nairn, Drysdale, Wisdom, Morison; Brunton and La Forest, equal; Saunders, Fitzgerald, Sutherland, Winslow.

C. C. MACHINERY.

Third Year.—Class I.—McHenry, Gilchrist. *Class II.*—Reid (R. H.), Gill; Jackson and McAfee and Powis, equal. *Class III.*—Dawes and Kohl, equal; McNaughton; Boright and Fregeau and Needham and Vinet, equal; Macdonald (J. H.), Alford, Ferrier, MacDiarmid, Vroom, Scott (R. W.), Ross (A. C.), Townshend, Williamson.

DESCRIPTIVE GEOMETRY.

Third Year.—Class I.—Farnsworth; Macdonald (J. J.) and Sproule, equal; Price. *Class II.*—Cowley and Dennis, equal; Dakin and Jost, equal; Anderson, Smith, deHart; Cole and Goodstone and Hattie and Stewart, equal; Small; Menzies and von Pozer and Wyman, equal; Cloran and Colter, equal; Narraway. *Class III.*—Bennet and Ewart, equal; Frith, Robertson (W. S.), Young; Hanson and Mauer, equal; Bambrick and Younger, equal; Daubney (C. B.); Hughes and Trench, equal; Stark; Knewstubb and Malloch and Ryley, equal.

First Year.—Class I.—Randolph, Schippel, Peden, Davies, Calkins, Bell (D. A. S.), Hayward, Duggan, May; Earle and MacLeod (D. L.) and McNiven, equal; Gnaedinger and Stroud, equal. *Class II.*—Cummer and Shaw, equal; Armstrong; Burr and Price, equal; Norris, McGregor (D. M.), Macrae (L. P.), Goode; Cameron and Heurtley and Richards, equal; Bagshaw; Chaffey and Warburton, equal; Ogilvie and Saunders, equal; Barnes and Wade, equal; Ryan; Cash and McKay and McLellan, equal; Hanington and Kearns and McGannon and Mather and Prince and Smith, equal. *Class III.*—Hugh-Jones; DesRosiers and Hutchins and McRae (J. P.) and Tebbutt, equal; Town and Weir, equal; Futterer and Gass and Jelly and Skelton and Weber, equal; Boyd (W. W.) and Heward, equal; Bonyun and Cohen (M. J.) and Lesage, equal; Metcalfe, Lefebvre; Blair and Cassels and McLennan, equal; Boyd (L. C.) and Boyd (T. B.) and Sawyer, equal; Biddulph and Rein-

hardt, equal; Austin; Robertson and Thomas, equal; Finley and Kirby, equal; Casey and Crockett and Lynch (J. A.) and McLeod (C. K.), equal; Barnaby and Masson and Underhill, equal; Downes and Fay and Hyman and Rolland, equal; Abbott and Fleming and Roy, equal; Angus and Brown (M. J.) and Clarke and Cooper and Elliott (A. J.) and Elliott (H. M.) and Hall and Johnson and Jordan and Lapp and Legris (J. A.) and Lindsay and MacDermot and McCammon and McLeod (S. A.) and Rennoldson and Robb and Salter and Savage and Scott (J. H.) and Wheatley and Whittall, equal.

DESIGNING.

Fourth Year. (*Civil Engineering Course*).—*Class I.*—Bradshaw, McLean, Johnston. *Class II.*—Fox, Powell, Smith, Montague, Dawson, Dennis, Dickson; Bronson and Layton, equal; Fetterly. *Class III.*—Heywood and Russell, equal; Poissant and Sailman, equal; Brown, Burbidge; Manny and Ross, equal; Anderson; DeLancey and Goodchild, equal.

Fourth Year (*Electrical Engineering Course*).—*Class I.*—Allen and Dwight, equal; Lindsay and McKnight, equal; Davies; Briggs and Soper, equal; Mulock. *Class II.*—Mooney and Wilson, equal; Hague and Lundy and Smith (S. M.), and Trotter, equal; Briegel and Seely, equal; Dickieson and Edwards, equal; Cate. *Class III.*—Fraser and Gall, equal; Gomes; Dion and Landry, equal; Slavin, Murphy.

Fourth Year (*Mechanical Engineering Course*).—*Class I.*—McKinnon. *Class II.*—Grove; Goode and Richardson (C. E.), equal; Robb, Ford. *Class III.*—Stansfield, Robertson, Ekers, Graham (H. M.), Spencer.

ECONOMICS.

Fourth Year.—*Class I.*—Ker. *Class II.*—Coulin.

Third Year.—*Class I.*—Slingsby. *Class II.*—McNab. *Class III.*—Derrom, Popham, Clark, Timberlake.

ELECTRIC LIGHTING.

Fourth Year.—*Class I.*—Mulock, Soper, Dwight. *Class II.*—McKnight, Davies, Lindsay, Briggs, Hague; Dion and Smith (S. M.), equal. *Class III.*—Edwards; Fraser and Gall, equal; Lundy, Briegel, Allen, Murphy, Trotter, Slavin, Cate; Landry and Mooney, equal; Gomes and Seely, equal.

ELECTRIC TRACTION.

Fourth Year.—*Class I.*—Dwight, McKnight, Hague, Lindsay, Davies. *Class II.*—Mulock, Smith (S. M.), Soper; Cate and Trotter, equal; Dickieson. *Class III.*—Edwards and Lundy and Seely, equal; Murphy and Wilson, equal; Allen and Briggs and Dion, equal; Gall, Fraser, Briegel.

ELECTRICAL ENGINEERING.

Fourth Year (*Civil, Mining, Metallurgical and Transportation Courses*).—*Class I.*—McLean, Fox, Bradshaw. *Class II.*—Smith; Kennedy and Ker, equal; Yuill, Powell, Stewart, Dennis, Sailman, Coulin,

Nairn; Montague and Russell, equal. *Class III.*—Dawson, Hilborn; DeLancey and Johnston, equal; Fetterly and Galbraith, equal; Winslow; Heywood and O'Neill and Sutherland, equal; Dickson; Ryan and Slingsby, equal; Bronson, Rider; Burbidge and Layton, equal; Scott, Baylis (H. A.); Babson and Eakins and Gillis, equal; Drysdale and Ross and Wisdom, equal.

Third Year (*Mechanical Engineering Course*).—*Class I.*—Fisher, Harris. *Class II.*—Magrath, Daubney, Day. *Class III.*—Beagley, Lomer; Adrian and Donald, equal; Dobson, Blackett, Hollinsed, Stackhouse, Cook, Macrae, MacKay (E.).

ELECTRICAL MEASUREMENTS.

Third Year.—Class I.—McHenry; Boright and Gill, equal. *Class II.*—Davies, McNaughton, Dawes, Reid (R. H.); Gilchrist and Kohl, equal; Ferrier and MacAfee, equal. *Class III.*—Needham, Scott (R. W.); Callender and Vroom, equal; Powis, Townshend, Macdonald (J. H.)., Fregeau, Williamson; MacDiarmid and Vinet, equal.

ELECTRO-CHEMISTRY.

Fourth Year.—Class I.—Dwight, Edwards, Hague. *Class II.*—Lindsay, McKnight; Mulock and Soper, equal; Baillie, Cate; Allen and Cheesborough, equal. *Class III.*—Gall, Fraser; Briggs and Davies and Dickieson, equal; Descarries and Smith, equal; Letourneau, Dion.

ELECTRO-METALLURGY.

Fourth Year.—Class I.—Babson and Stewart, equal; Cantley and Conway and Yuill, equal. *Class II.*—Hilborn, Rider, Wisdom, Nairn, Morison, Sutherland; Brunton and Gillis and O'Neill and Saunders, equal. *Class III.*—Winslow, LaForest.

ENGLISH.

Fourth Year.—Class I.—Slingsby, Coulin. *Class II.*—Ker.

Third Year.—Class I.—None. *Class II.*—Clark, Derrom. *Class III.*—McNab and Timberlake, equal; Popham.

First Year.—Class I.—Gass, Randolph; Heurtley and MacDermot, equal; Cooper and Johnson and Paddon, equal. *Class II.*—Cole, Schippel, McNiven, McRae (J. P.); King and McMahon (J. W.) and Tebbutt, equal; Heward and Nichols and Saunders and Smith (B. O.) and Wade, equal; Abbott and Barnes, equal; Hetherington and Hughson and McGregor (D. M.), equal; Cameron and Futterer and Mac Donald (G. C.), and Peden and Veilleux, equal; Barnaby and Hugessen and Robb, equal; Brown (L.) and Goode and Kearns and Wheatley, equal; Alexander and DesRosiers and Duffield and Norris and Salter and Shaw, equal; Cohen, (M. J.), and Hanington and Reinhardt and Starke and Turnbull, equal; Edwards and Hyman and McMaster and Pullen, equal; Biddulph and Hutchins and McDougald and Warburton, equal; Balan and Cash and Elliott and May and Macrae (L. P.) and Underhill, equal; Boyd (T. B.) and Hall and Leckie and Mather and Stroud and Wilson (W. B.), equal. *Class III.*—Casey and Lapp, equal; Bagshaw and Chaffey and Brown (M. J.) and Hodgson and Hugh-Jones and Robertson and Sherman, equal; Bonyun and Ellis and Lynch (J. A.) and

Russell, equal; Armytage and Bell (W. E.) and Davidson (W. J.) and Lefebvre and Masson and Richards and Rolland and Weber, equal; Hadley and Peters and Routledge, equal; Cohen (N. B.) and Draper and Hayward and McCuaig, equal; Brophy and Kirby and LaForest and Prince and Traversy and Vallance and Whittall, equal; Hamilton; Angus and Bell (D. A. S.) and Boyd (W. W.) and Cummer and Ryan, equal; Burr and Metcalfe and Skelton and Wright, equal; Fay; Hull and Moseley and Young, equal; Gougeon and Patterson and Silver, equal; Farrell; Jelly and Suckling and Webster, equal; Gaudion and Tolzess and Town and Wilson (E. W.), equal; Reid (E.); Blair and Drummond and Ethier and McLeod (C. K.) equal.

EXPERIMENTAL PHYSICS

Second Year.—Class I.—Scrivener, Sankey, Linagh, Willis (G. C.); Dennison and Murray, equal; Carnwath and Oughtred, equal. *Class II.*—Dodd; DeGruchy and Ovalle, equal; Glasmacher, Robinson, Gnaedinger (C. W.); Gregory and Stavely, equal; Briercliffe, Wood (D. F.); Ivey and Morkill, equal; Macaulay ,Ray, Foster, Archibald, Hooper; Walcott and Watson, equal; O'Leary. *Class III.*—Koch and McDonald (P. E.) and Pengelley and Stevenson, equal; Cram and Galloway (J. D.) and Holland, equal; Forman and Smith, equal; Brotherhood and Clark and Gillies and Nares, equal; Falcke and Henry and Murphy, equal; Elliott and Kingsley and Planche and Webb and Wilson, (R. S. L.), equal; Brebner and Forbes, equal; Collier and Darling, equal; Evans; Bacon and Dixon and Irwin and Lipsey and Richardson, (C. E.) and Underhill (F. C.), equal; Philips and Walker, equal; Allwood and Boast and Garth and Johnston (R. L.), equal; Cushing, McDougall; Legris (J. A.) and Ralston, equal; Alward and Brydone-Jack and Child, equal. ;

First Year.—Class I.—Davis, Weir, Heurtley; Jelly and Tebbutt, equal Hugh-Jones, Ogilvie; Gass and Randolph, equal. *Class II.*—Hyman and O'Brien, equal; Hayward and Peden, equal; MacLeod (D. L.) and Stroud, equal; Cohen (M. J.); Armstrong and McRae (J. P.), equal; McLellan and Schippel, equal; DesRosiers and Lesage, equal; Kirby; Bell (D. A. S.) and Norris and Salter and Shaw, equal; Boyd (W. W.) and Cameron and Duggan and Hanington and Lapp and Saunders, equal; Cummer and May, equal; NcNiven and Skelton and Weber, equal; Cash and Futterer and Kearns, equal; Boyd (T. B.); Biddulph and Goode and Johnson and Ryan and Wade, equal; Downes and McMahon (J. W.), and Macrae (L. P.), equal; Barnes and Elliot and Gnaedinger (F. T.) and Heward, equal. *Class III.*—Bagshaw and Graham (E. J.) and MacDermot, equal; Burr and Casey and Lefebvre, equal; Calkins and Finley and Sawyer and Warburton, equal; Hadley and McGregor (D. M.) and Prince and Robb, equal; Abbott and Lynch (T.), and Roy and Whittall, equal; McCuaig and Sherman, equal; Cassells and Cooper and Hutchins and Russell and Thomas and Clarke, equal; Davidson (W. J.) and Fleming and Redpath and Smith (B. O.), and Veilleux, equal; Balan and Peters, equal; Chaffey; Cohen (N. B.) and Farrell and Hetherington and Lynch (J. A.)and Nichols, equal; Crockett and Edwards and Hall and Wilson (W. B.), equal; Gougeon and MacDonald (G. C.) and Starke, equal; Blair and Fay and Hugessen and Hughson and Smith (P. P.), equal; Angus and Barnaby and Bonyun, equal; Turnbull; Alexander and Brown, (M. J.) and Gaudion and Hudson and Reinhardt and Robertson

and Routledge and Traversy and Vallance, equal; Duffield and Gohier and McLennan and McLeod (C. K.), equal; Ellis and Hamilton and Masson, equal; Cole and McDougald and Town and Wheatley, equal.

FOUNDATIONS AND MASONRY.

Third Year.—Class I.—Farnsworth and Stewart, equal; Smith, Macdonald (J. J.), Hattie, Anderson. *Class II.*—Jost, Cowley, Timberlake, Dakin, Derrom; Dennis and Dowie and Price and Slingsby, equal; McNab and Small, equal; Bennet and deHart and Trench, equal; Colter and Robertson (W. S.), equal; Ryley, Cloran; Menzies and von Pozer, equal. *Class III.*—Scott (O. H.), Ewart, Millican; Clark and Sproule and Younger, equal; Narraway, Wyman, Robertson (E. D.); Bambrick and Cole, equal; Popham, Daubney (C. B.), Goodstone, Duguid.

FREEHAND DRAWING.

First Year.—Class I.—Mather and Smith (B. O.), equal; Schippell, Peden, Armstrong, Saunders. *Class II.*—Boyd (W. W.); Boyd (T. B.) and Hutchins and McGannon and Stroud, equal; Duggan and Shaw, equal; Adam (J. A.) and Bonyun and Brown (L.) and Hadley and Lefebvre, equal; Barnes; Cummer and McRae (J. P.) and Ryan, equal; Bell (D. A. S.) and Futterer and Thomas and Town, equal; Masson and Ogilvie and Randolph, equal; Cooper and Tebbutt, equal; Adam (R.) and Gougeon and Hugh-Jones, equal; Casey and DesRosiers and Jelly and Kearns and Norris, equal; Biddulph and Blair and Cameron and Clarke and Drummond and Heurtley and MacDermot and Prince and Savage and Skelton, equal; Abbott and Burr and Hayward and Hodgson and McLeod (C. K.) and Whittall, equal; Davis and May, equal; Cash and Weber, equal; Brophy and Cohen (N. B.) and Edwards and Johnson and McCuaig and McGregor and Redpath and Robb, equal; Coombes and Gass and Hanington and Hugessen and Silver, equal; Calkins and Lynch (J. A.) and McDougald and Nichols, equal. *Class III.*—Alexander and Graham (E. J.) and Hughson and LaForest and Sherman and Starke, equal; Cassells and Reid (A. W.), equal; Angus and Bell (W. E.) and Goode and Hamilton and Heward and Metcalfe, equal; Bolan and Hull and Reinhardt and Robertson, equal; Hall and MacLeod (D. L.), equal; Rennoldson and Russell and Suckling, equal; Fay and Lapp and O'Brien and Peters and Williams, equal; Wheatley; Cohen (M. J.) and Downes and Elliott and McMahon (J. W.), equal; Duval; Davidson and Macdonald and Salter and Thom, equal; Finley and Moseley and Pitts and Pullen and Traversy, equal; Duffield and Hyman and Rolland and Turnbull, equal; King and Warburton and Wilson (W. B.) and Wright, equal; Vallance; Brisbane and Cole and Patterson, equal; Grattan and Routledge and Weir, equal; Brown (M. J.) and Ethier and Paddon and Veilleux, equal.

FREIGHT SERVICE.

Fourth Year.—Class I.—None. *Class II.*—Coulin, Ker.
Third Year.—Class I.—Clark. *Class II.*—McNab, Timberlake. *Class III.*—Derrom, Popham.

GEODESY.

Fourth Year.—Class I.—Smith (G. W.); Dennis and Powell, equal; Bradshaw, McLean, Fox, Johnston, Dawson. *Class II.*—Sailman, Fetterly, Montague, DeLancey. *Class III.*—Burbidge, Heywood, Dickson, Russell; Baylis and Layton, equal; Ryan; Anderson and Poissant, equal; Ross, McKinnon.

GEOLOGY AND PETROGRAPHY.

Fourth Year.—Class I.—Yuill. *Class II.*—Nairn; Rider and Stewart, equal; Drysdale, Kennedy, O'Neill; Babson and Hilborn, equal; Galbraith, Sutherland. *Class III.*—Cantley, Gillis (H. B.); Morrison and Wisdom, equal; Winslow.

GEOLOGY.

Third Year.—Class I.—Farnsworth, Cowles; Price and Small, equal; Ayer and Simpson, equal; Jost. *Class II.*—Brown and Macdonald (J. J.) and MacLean and von Pozer, equal; Anderson and Cox, equal; Archibald and Sproule, equal; Gibbins and Stewart, equal; Dakin and McFarlane and McLeod and Smith, equal; Robertson (E. D.); Colter and Haultain, equal; Rutherford; Bambrick and Hattie, equal; Fowler and Menzies, equal; Hanson; Daubney (C. B.) and Meek, equal; Bennett and Scott (O. H.), equal; Cowley and Fox and Malloch and Trench, equal; Duguid and Ewart and Strong, equal; Williams; Maltby and Narraway and Sanderson and Young, equal. *Class III.*—Dennis and Robertson (W. S.), equal; Cole and Hughes, equal; Cloran and deHart and Elkins, equal; Burland and Frith and Gillies, equal; Mauer and Ryley, equal; Goodstone and Penney, equal; Durant, Stark, Wyman, Pearce, Bayly.

GRAPHIC STATICS.

Fourth Year.—Class I.—McLean, Fox. *Class II.*—Smith Bradshaw, Sailman, Dennis, Powell. *Class III.*—Johnston, Bronson, Dawson, Fetterly, Burbidge, Montague, Baylis, Layton, Russell, Dickson; Heywood and Ross, equal; Brown and DeLancey, equal.

Third Year.—Class I.—Dowie, Farnsworth, Hattie; Dakin and Robertson (W. S.) and Sproule, equal; Colter and Cowley and Stewart and Younger, equal; Dennis and McNab and Menzies and Staveley, equal; Jost; Clark and von Pozer and Wyman, equal; Anderson and Cole and Robertson (E. D.) and Small, equal; Ewart, Young; Bennet and Cloran and deHart, equal; Narraway and Smith, equal; Daubney (C. B.) and Timberlake, equal; Price, Duguid, Macdonald; Goodstone and Hanson, equal. *Class II.*—Frith; Millican and Ryley, equal; Bambrick, Hughes, Wood (J. R.), Stark, Tanner. *Class III.*—Popham, Mauer, Derrom.

Second Year.—Class I.—Scrivener, Earle, Willis (G. C.). *Class II.*—Forbes, Brotherhood, Ray, Ivey; deGruchy and Linagh and Oughtred and Underhill (F. C.), equal; Foster; Bolton and Murray, equal; Bacon and Carnwath and Fortier and Gnaedinger (C. W.) and McDonald (P. E.) and Wood (D. F.), equal; Johnston (R. L.), Murphy; Walcott and Watson and Wilson (T. E.), equal; Dodd and Philips, equal; Bisson; Falcke and Morkill and Sankey, equal; Lipsey; Boast and Cushing and Darling, equal. *Class III.*—Denni-

son and Shanly and Smith (W. P.), equal; Gregory; Archibald and Koch, equal; Cram and Planche, equal; Kingsley and O'Leary and Reid and Richardson (C. E.) and Wilson (R. S. L.), equal; Dixon and Galloway (J. D.) and Glasmacher and Lindsay and Thompson and Webb and Willis (F. S.), equal; Lockhart and Walker, equal; Beauvais and Briercliffe and Ovalle and Pengelley and Robinson, equal; Cardinal; Matheson and Stevenson and White (H. A.), equal; Child; Boyd (L. C.) and Collier and Hooper, equal; Brydone-Jack and Elliott, equal; Flewin and Forman, equal; Halliday and Ross, equal; Woodyatt; Gillies and Henry and Seath and Skelton, equal; Holland; Campbell and Clark and Evans and Green and Scott, equal; Austin and Demers and Legris (J. A.) and Little, equal.

HYDRAULICS.

Fourth Year.—(*Complete Course.*)—*Class I.*—Smith (G. W.), Ford. *Class II.*—McLean, McKinnon (K. R.), Powell; Bradshaw and Dennis, equal; Sailman, Fox, Robb, Dawson. *Class III.*—Stansfield; Fetterly and Montague, equal; Johnston, Bronson, Layton, Russell, Ross; Dickson and Goode and Heywood, equal; DeLancey and Richardson, equal; Burbidge and Graham (H. M.), equal; Grove.

Fourth Year.—(*Partial Course.*)—*Class I.*—Dwight. *Class II.*—Briggs and Mulock, equal; Kennedy; Dickieson and Smith (S. M.), equal; Yuill; Dion and McKnight, equal. *Class III.*—Edwards and Nairn, equal; Lindsay and Stewart, equal; Gall, Galbraith, Soper and Wisdom, equal; Hilborn, Fraser, Hague, Allen, Morison Landry; Cate and O'Neill, equal; Babson and Cantley and Gillis and Rider and Sutherland and Winslow, equal. PASSED.—Brown (L. O.), Renaud.

LABORATORIES.

A. C. LABORATORY.

Fourth Year.—(*Electrical Engineering Course.*)—*Class I.*—Dwight and McKnight and Soper, equal; Mulock; Hague and Lindsay and Wilson, equal. *Class II.*—Davies and Smith (S. M.), equal; Briggs; Dickieson and Fraser, equal; Cate and Dion, equal. *Class III.*—Edwards and Gall and Murphy, equal; Lundy; Briegel and Trotter, equal; Seely, Allen, Slavin; Gomes and Mooney, equal.

CHEMICAL LABORATORY.

Fourth Year.—(*Mining Engineering Course.*)—*Class I.*—Kennedy, Yuill, Hilborn. *Class II.*—Rider, O'Neill, Stewart; Cantley and Sutherland, equal; Nairn, Winslow. *Class III.*—Galbraith, Drysdale, Gillis, Morison, Eakins.

Second Year.—*Class I.*—None. *Class II.*—Willis (G. C.), Walker, Gnaedinger (C. W.), Stevenson; Brebner and Murphy, equal; Carnwath and Dodd and Ivey, equal; Dixon and Morkill and Smith (W. P.), equal; Watson and Wood (D. F.), equal; Koch and Sankey, equal; Clark; Allwood and Scott and Scrivener and Staveley, equal; Forman and Gregory and Ray, equal; Galloway (C. C.) and Johnston (R. L.), equal; Bacon and Beauvais and Robinson and Wilson (R. S. L.), equal; Child and Richardson (C. E.), equal; Cushing and Evans and McDonald and Walcott and Willis (F. S.), equal.

Class III.—Briercliffe and Brotherhood and Irwin and Linagh, equal; Archibald and Foster and O'Leary and Pengelley, equal; Garth and Glasmacher and Lipsey, equal; Anderson (J. R.) and deGruchy and Gillies and Green and Oughtred, equal; Bolton and Falcke and Webb, equal; Alward and Boast and Holland and Hooper and Planche, equal; Philips; Collier and Hasbrouck, equal; Murray and Oliver, equal; Gall and Gorman and Kelly, equal; Darling and Lockhart, equal; Austin and Christie and Fortier, equal; Anderson (J. G.) and Campbell and Cram and Johnston (R. C.), equal; Forbes and McDougall and Seath and Thompson, equal; Matheson; Connolley and Ralston and Woodyatt, equal; Kingsley.

C. C. LABORATORY.

Third Year.—(*Electrical Engineering Course.*)—*Class I.*—McHenry, Reid (R. H.). *Class II.*—Gilchrist and Jackson, equal; MacAfee; Boright and Gill and Macdonald (J. H.), equal; MacDiarmid, Callander, Williamson; Dawes and Ferrier and Needham and Townshend and Vinet, equal; Fregeau; Kohl and Vroom, equal; McNaughton and Powis and Scott (R. W.), equal. *Class III.*—Alford and Ross (A. C.), equal.

ELECTRICAL ENGINEERING LABORATORY.

Fourth Year.—(*Civil, Metallurgy, Mining and Transportation Courses.*)—*Class I.*—None. *Class II.*—Ker; DeLancey and McLean, equal; Bronson; Galbraith and Hilborn and Johnston and Russell and Smith and Thorne, equal; Fox; Dennis and Fetterly and Powell, equal; Cantley and Dickson and Sailman and Yuill, equal; Bradshaw and Coulin and Dawson and Sutherland, equal; Drysdale, Manny; Anderson and Nairn and O'Neill, equal. *Class III.*—Burbidge and Rider, equal; Conway and Kennedy and Ross, equal; Heywood, Goodchild; Baylis and Morison and Scott (O. H.), equal; Slingsby, Stewart; Babson and McKinnon and Ryan, equal; Winslow; Bayly and Montague, equal; Layton; Eakins and Wisdom, equal; Gillis.

Fourth Year.—(*Mechanical Engineering Course.*)—*Class I.*—None. *Class II.*—McKinnon, Robb, Grove, Ford. *Class III.*—Stansfield, Robertson, Richardson, Goode.

Third Year.—(*Mechanical Engineering Course.*)—*Class I.*—Fisher, Harris. *Class II.*—Magrath, Daubney, Dobson, Donald; Beagley and Hollinsed, equal; *Class III.*—Adrian, Buttenshaw, Stackhouse, Day, Lomer, MacKay (E.), Cook; Blackett and Macrae, equal.

GEODETIC LABORATORY.

Fourth Year.—*Class I.*—None. *Class II.*—Fox; Dennis and McLean and Ross, equal; Bradshaw, Smith, Manny, Sailman, Fetterly, Dickson, Goodchild; Anderson and Bronson, equal; Burbidge and Johnston and Russell, equal; Dawson. *Class III.*—Powell, Layton, DeLancey, Heywood, Ryan; McKinnon and Montague and Poissant, equal.

HYDRAULICS LABORATORY.

Fourth Year.—*Class I.*—Dwight, McLean (D. L.), McKnight, Ford; Lindsay and Robb, equal. *Class II.*—Fetterly, Kennedy, Hague, McKinnon (K. R.), Briggs, Dennis; Sailman and Smith (G. W.),

equal; Johnston; Montague and Richardson (C. E.) and Spencer and Soper, equal; Goode and Powell, equal. *Class III.*—Dawson and Dickieson, equal; Grahame (D. F.), Bradshaw; Allen and Fox and Stansfield, equal; MacKay (G. W.); Dion and Fraser, equal; Baylis and Burbidge and Grove, equal; Gall and Russell, equal; DeLancey and Heywood and Mooney and Smith (S. M.), equal; Layton and Robertson (G.) and Thorne and Trotter, equal; Dickson; Bronson and Edwards, equal; Goodchild; McKinnon (J. A.) and Ross (C. C.), equal; Seely; Briegel and Cate and Ekers and Graham (H. M.) and Landry and Lumsden and Manny and Slavin and Thomas, equal.

MECHANICAL ENGINEERING LABORATORY.

Third Year.—(*Civil, Electrical and Mining Engineering Courses.*)—*Class I.*—Needham. *Class II.*—Brown, Cowles; Boright and Ferrier and Small, equal; MacAfee and Simpson and Stewart (R. B.), equal; MacLean (C. S.); Hattie and Macdonald (J. J.), equal; Dakin and Farnsworth and Smith, equal; Anderson and Gill and Jost, equal; Colter and Jackson, equal; McHenry and Reid (R. H.), equal; Haultain and Price and Sproule, equal; Dennis and MacDiarmid and Robertson (W. S.), equal; Cox and Gibbins and Menzies, equal; Callendar and Fowler, equal; Gilchrist and Scott (R. W.), equal; Dawes and Macdonald (J. H.) and McLeod (J. W.) and McNaughton, equal; Fox and Hughes, equal. *Class III.*—Malloch and Rutherford and Ryley and von Pozer and Vroom, equal; Young; Bennett and Cloran and Kohl, equal; Ayer and Hanson, equal; Cole, Williamson, Narraway; Fregeau and Powis and Vinet, equal; Wyman and Younger, equal; Frith and Robertson (E. D.) and Strong and Tanner, equal; Archibald (M. S. E.) and Bambrick and Macfarlane, equal; Sanderson and Townshend, equal; Cowley and Ewart and Pearce and Ross (A. C.) and Stuart (A. G.), equal; Daubney (C. B.) and Maltby and Mauer, equal; Porter; Alford and Burland, equal; deHart and Meek and Penney and Scott (O. H.), equal; Duguid and Elkins and Goodstone, equal.

Third Year.—(*Mechanical Engineering Course.*)—*Class I.*—Fisher. *Class II.*—Magrath, Daubney (J. E.), Dobson, Harris, Macrae. *Class III.*—Cook, Adrian, Buttenshaw, Stackhouse, Beagley, Blackett, Mackay (E.), Donald, Day, Hollinsed, Lomer.

MINERALOGY LABORATORY.

Third Year.—*Class I.*—Cowles; Ayer and Cox, equal; Gillies, Archibald, Meek. *Class II.*—Brown and Haultain, equal; Fox and Gibbins and Macfarlane, equal; Elkins and Maltby and Strong, equal; Porter; Burland and Simpson, equal; Fowler and Stuart (A. G.), equal; Rutherford, McLeod; McLean (C. S.) and Williams, equal. *Class III.*—Penney, Sanderson, Durant, Gartshore; Baylis and Pearce, equal.

MINING AND METALLURGICAL LABORATORY.

Fourth Year.—*Class I.*—Yuill, Stewart, Hilborn; Conway and Wisdom, equal. *Class II.*—Babson, Rider, Galbraith, Drysdale, Kennedy, O'Neill, Gillis; Brunton and Nairn, equal. *Class III.*—Sutherland; Morison and Winslow, equal; Eakins, Cantley, Saunders, Fitzgerald.

Third Year.—Class I.—McHenry, McNaughton, Vinet, Vroom, Gill. *Class II.*—Boright, Davies, Callender; Ferrier and Scott (R. W.), equal; Kohl and Reid (R. H.), equal; Townshend, Powis; Macdonald (J. H.) and Needham, equal; Gilchrist and Jackson, equal; Dawes and MacDiarmid, equal; Fregeau and Williamson, equal; MacAfee. *Class III.*—Alford.

Second Year.—Class I.—Scrivener, Oughtred, Walcott; Linagh and Staveley, equal; de Gruchy. *Class II.*—Stevenson; Gregory and Ovalle and Willis (G. C.), equal; Planche and Wilson (R. S. L.), equal; Forman; Dodd and Garth and Sankey, equal; Boast and Macaulay, equal; Falcke and Gnaedinger (C. W.) and Lipsey and Murray, equal; Dennison and Morkill and Seath, equal; Briercliffe and Clarke and Ray and Walker, equal; Carnwath and Forbes, equal; Gillies and Thompson and Wood (D. F.), equal; Brotherhood and Collier, equal; Allwood and Bolton and Child and Cushing and Green and O'Leary and Robinson, equal; Glasmacher and Johnston (R. L.) and Richardson (C. E.), equal; Archibald and Campbell and Murphy and Willis (F. S.), equal; Anderson (J. R.) and Connolley and Henry and Legris (J. A.) and Ralston and Webb, equal; Foster and Watson, equal. *Class III.*—Darling and Demers and Ivey and Pengelley, equal; Evans and Hasbrouck and Scott and Skelton, equal; Dixon and McDonald (P. E.) and Philips and Shanly, equal; Bacon and Beauvais and Koch and Lockhart and White (J. A. C.), equal; Cram and Kelly, equal; Alward and Smith and Woodyatt, equal; Fortier and Oliver, equal; Irwin and Kingsley, equal; Anderson (J. G.) and Brebner, equal; Johnston (R. C.), McDougall; Gorman and Holland, equal; Christie and Flewin and McInnes, equal; Mallory, Nares; Elliott and Hooper, equal.

First Year.—Class I.—Shaw, McRae (J. P.), Randolph; McKay and Norris, equal; Cohen (M. J.), Ogilvie; Duggan and Heurtley, equal; Hayward; Gass and Heward and Johnson, equal; Armstrong, Sargent; Jelly and Skelton and Weir, equal; Hadley. *Class II.*—Pullen and Schippel, equal; Hamilton and Salter and Tebbutt, equal; Robb and Spafford and Weber and Whittall, equal; Fay and Peden, equal; Alexander and Casey and Davis and Hall and Hugh-Jones and Hughson and Hyman and McMahon (J. W.), equal; Davidson and McLeod (C. K.) and Russell and Ryan and Stroud, equal; Angus and Coombes and Edwards and Hanington and MacDermot and Starke, equal; Cassels and Lefebvre, equal; Barnaby and Brown (L.) and McLeod (D. L.) and Nichols and Traversy, equal; Cameron and Kearns and Sherman, equal; Finley and Saunders, equal; Bonyun; Bolan and Calkins and Downes and Drummond and Elliott and Futterer and May and Roy, equal; Cummer and DesRosiers and Robertson and Silver, equal; Adam (R.) and Burr and Cohen (N. B.) and Gaudion and Goode and Hutchins and Reinhardt and Sawyer, equal; Graham (E. J.) and Graham (J.) and Hugessen and Williams, equal; Brisbane and Brown (M. J.) and Thom and Wilson (W. B.), equal. *Class III.*—Blair and Boyd (W. W.) and McCuaig and Redpath and Smith (B. O.) and Suckling and Wright, equal; Biddulph and Gougeon and Lynch (T.) and Moseley and Reid (A.W.), equal; Bell (D.A. S.) and Boyd (T. B.) and Cole and Hodgson and LaForest and Town and Wheatley, equal; O'Brien and Pitts, equal; Barnes and Lapp and Mather and McDougald and Warburton, equal; Peters and Thomas, equal; Abbott and Bell (W.E.) and King and Prince,

equal; Paddon and Rolland and Wilson (E. W.), equal; Adam (J. A.) and Hull and Webster, equal; Kirby and MacDonald (G. C.) and Reid (E.) and Veilleux, equal; Cash and Smith (H. F.) and Vallance, equal; Brophy and McGregor and Routledge and Tolzess, equal; Duffield and Masson and Turnbull, equal; Burke and Lynch (J. A.), equal; Cooper and Ethier and Landers and Logan, equal; Metcalfe, Caldwell.

PHYSICAL CHEMISTRY LABORATORY.

Fourth Year.—Class I.—None. *Class II.*—None. *Class III.*—Cheesborough, Baillie; Descarries and Letourneau, equal.

PRACTICAL ORGANIC CHEMISTRY LABORATORY.

Fourth Year.—Class I.—Cheesborough. *Class II.*—Baillie.
Third Year.—Class I.—None. *Class II.*—Illievitz, Robertson (H. A.).

RAILWAY MECHANICAL ENGINEERING LABORATORY.

Third Year.—Class I.—None. *Class II.*—Clark, Derrom. *Class III.*—Popham, McNab, Timberlake.

STRENGTH OF MATERIALS LABORATORY.

Third Year.—Class I.—Macdonald (J. J.), Dowie, Farnsworth, Smith, Jost, Fisher; McHenry and Sproule, equal. *Class II.*—Small, Gill; Anderson and Fowler, equal; Ayer and Derrom, equal; Bennett and Ferrier and Price and Robertson (W. S.), equal; Reid (A. C.); Cox and Daubney (C. B.) and Wyman, equal; Daubney (J. E.) and Dawes and MacAfee and Scott (O. H.) and Stewart (R. B.) and Timberlake and Vroom, equal; McNaughton and Young, equal; Hattie; Colter and Dakin and von Pozer and Younger, equal; Adrian and Boright and Dobson and Magrath and Trench, equal. *Class III.*—Burland and Elkins and Lomer and Needham, equal; Cowley and Kohl and Knewstubb and Macrae, equal; Cowles and Jackson, equal; Brown and de Hart and Dennis and Fox and Little and Rutherford, equal; Haultain; Goodstone and McNab and Meek and Reid (R. H.) and Stackhouse, equal; Hanson and McLean and Narraway and Powis, equal; Harris; MacKay (E.) and Pearce, equal; Buttenshaw and Gilchrist, equal; Day and Slingsby and Strong, equal; Cloran and Williamson, equal; Alford and Archibald and Scott (R. W.) and Townshend, equal; McLeod and Menzies, equal; Duguid and Gibbins and Macfarlane and Malloch and Popham and Sanderson and Tanner, equal; Ewart and Fregeau and Hughes, equal; Clark and Cummins and MacDiarmid and Descarries, equal; Maltby and Mauer and Ross and Ryley and Williams, equal; Bisson and Blackett and Cole and Simpson and Vinet, equal; Bambrick and Beagley and Callander and Donald and Frith and Macdonald (J. H.) and Stuart, equal.

THERMODYNAMICS LABORATORY.

Fourth Year.—(Mechanical Engineering Course.)—Class I.—McKinnon. *Class II.*—Robb, Ford; Richardson and Robertson and Stansfield, equal. *Class III.*—Grove, Renaud, Goode; Maver and Spencer, equal.

LAW.

Fourth Year.—*Class I.*—Smith. *Class II.*—Derrom and Timberlake, equal; Baylis (H. A.) and Ford and Gillis, equal; Sailman, Dawson; Dennis and Graham (H. M.), and Powell and Stansfield, equal; Poissant and Rider, equal; Fetterly and Fox and McLean, equal; Clark and Johnston and Kennedy, equal; Yuill, Bradshaw; DeLancey and Goode, equal; McKinnon (K. R.) and Russell, equal; O'Neill; McNab and Sutherland, equal; Richardson and Ryan, equal; Bronson and Grove, equal; Robb and Thorne, equal; Ross and Scott, equal; Cantley and Grahame (D. F.) and McKinnon (J. A.), equal; Eakins and Heywood and Layton, equal. *Class III.*—Montague and Stewart, equal; Hilborn and Maver, equal; Dickson and Goodchild and Wisdom, equal; Drysdale and Popham and Winslow, equal; Anderson; Burbidge and Nairn, equal; Galbraith and Morison and Robertson, equal; Babson, Manny.

Third Year.—(*Transportation Course.*)—*Class I.*—None. *Class II.*—Derrom and Timberlake, equal; Clark ,McNab, Scott (O. H.). *Class III.*—Popham.

MACHINE DESIGN.

Fourth Year.—(*Electrical Engineering Course.*)—*Class I.*—Dwight, Lindsay, Dickieson. *Class II.*—Briggs and Edwards, equal; Fraser, McKnight. *Class III.*—Hague, Gall, Dion, Smith (S. M.); Mulock and Slavin, equal; Landry and Soper, equal.

Fourth Year.—(*Mechanical Engineering Course.*)—*Class I.*—McKinnon. *Class II.*—Robb, Richardson, Ford. *Class III.*—Stansfield, Goode, Grove, Renaud.

Third Year.—(*Electrical and Mechanical Engineering Courses*).—*Class I.*—Fisher. *Class II.*—Gilchrist, McNaughton, MacAfee, Harris, McHenry; Magrath and Stackhouse, equal; Gill, Lomer, Vroom, Boright, Daubney (J. E.). *Class III.*—Ferrier, Dawes; Blackett and Reid (R. H.), equal; Beagley; Kohl and Needham, equal; Powis, Buttenshaw; Dobson and Mackay (E.), equal; Fregeau; MacDiarmid and Stevenson and Williamson, equal; Macdonald.

MAPPING.

Third Year.—*Class I.*—Archibald (M. S. E.) and Gartshore and McLeod (J. W.) and Simpson and Stuart, equal. *Class II.*—Ayer and Brown and Brunton and Burland and Cowles and Cox and Fox and Gibbins and Gillies (G. A.) and Haultain and MacLean and Meek and Pearce, equal; Fowler and Maltby and Rutherford and Strong, equal. *Class III.*—Cummins and Elkins and Macfarlane, equal.

Second Year.—*Class I.*—None. *Class II.*—Matheson; Foster and Nares, equal; deGruchy; Clark and Smith, equal; Forman and Richardson (C. E.) and Willis (G. C.), equal; Boast and Ivey and Scrivener, equal; Gnaedinger (C. W.) and Johnston (R. L.) and Staveley and Willis (F. S.), equal; Child and Dixon and Koch and Morkill and Watson, equal; Boyd and Collier and Dodd and McDonald (P. E.) and Shanly, equal; Archibald and Briercliffe and Carnwath and Cushing and Forbes and Ray, equal; Kingsley and Lockhart and MacDonald (G. H.) and Murray and Pengelley, equal; Elliott and Fortier and Hooper and Linagh and Philips and Skelton and Wood (D. F.), equal; Beaulne and Bolton and Connolley and Flewin and

Gillies (C. C.) and Kelly and Murphy and Ralston and Ross and Webb, equal; Bacon and Beauvais and Campbell and Dennison and Henry and O'Leary and Planche and Stevenson, equal; Darling and Gregory and Lipsey and Oughtred, equal; Evans and Glasmacher and Hasbrouck and Lesage and Oliver and Peck and Sankey and Scott and Wilson (T. E.) equal; Cram and Walcott and Wilson (R. S. L.), equal; Brebner and Holland and Lindsay and Walker and Woodyatt, equal. *Class III.*—Brotherhood and Demers and Falcke and Gall and Garth, equal; Allwood and Johnston (R. C.) and McDougall, equal; Anderson (J. G.) and Christie and Gorman and Green and Thompson, equal; Anderson (J. R.) and Gohier and Hawkins and Irwin and Legris (C. E.), equal; Alward, Richardson (A. I.), White, Brosseau, Robinson.

MATERIALS OF CONSTRUCTION.

Second Year.—Class I.—Scrivener; Ray and Robinson and Sankey, equal; Ross and Smith, equal; Staveley, Linagh, Willis (G. C.); Carnwath and Dennison and Earle, equal; Bacon; Galloway (J. D.) and Murray and Wilson (T. E.), equal; Campbell and Forbes and Gregory and Wilson (R. S. L.), equal. *Class III.*—Ivey, Roy; Brotherhood and Kingsley, equal; Johnston (R. L.); Holland and McDonald (P. E.), equal; Alward, Dodd, Brebner, Koch; Collier and Brydone-Jack, equal; Gnaedinger (C. W.), and Webb, equal; de Gruchy and Hooper and Morkill, equal; Briercliffe; Evans and Wood (D. F.), equal; O'Leary and Scott and Watson, equal. *Class III.*—Child; Foster and Henry and Walker, equal; Irwin and Glasmacher, equal; Elliott and Underhill (F. C.), equal; Gall and Ovalle, equal; Allwood and Boast and Forman and Gillies (C. C.) and Seath, equal; Boyd and Matheson and Oughtred and Stevenson, equal; Archibald and Cushing and Willis (F. S.), equal; Bolton and Dixon and Gorman and Legris (J. A.) and Murphy and Pengelley and Phillips, equal; Nares and Planche, equal; Christie and Darling and Oliver and Walcott, equal; Falcke and McDougall, equal; Austin and Clark and Kelly and Thompson, equal; Mallory, Johnston (R. C.); Demers and Hasbrouck and McKinnon (D. A.) and Ralston and Richardson (C. E.), equal.

MATHEMATICS.

CALCULUS (OPTIONAL).

Third Year.—Class I.—Macdonald (J. J.) *Class II.*—McNaughton, Needham. *Class III.*—Magrath.

MECHANICS.

Third Year.—Class I.—Farnsworth and Harris, equal; Ferrier and Macdonald (J. J.), equal; Kohl, Boright; Fisher and McNaughton and Stewart, equal. *Class II.*—Gilchrist and Jost, equal; de Hart, Robertson, Cowley; Blackett and Gill and Price, equal; Cowles and Magrath, equal; Daubney (J.E.), Sproule, Small, Dennis; Cloran and Fowler, equal; Ryley; Colter and Menzies and Vroom, equal. *Class III.*—Needham; Brown and Strong, equal; von Pozer ,MacAfee; Ayer and Ewart and Gibbins, equal; Adrian and Cook and Smith, equal; Anderson; McHenry and Meek, equal; Dawes and

Haultain and Macdonald (J. H.) and Mackay (E.) and McLeod, equal; Bennet and Scott (O. H.), equal; Rutherford; Beagley and Young, equal; Dakin and Williamson, equal; Stackhouse; Daubney (C. B.) and Mauer and Reid (R. H.), equal; Alford; Burland and Donald and Fregeau and Hollinsed and Macrae (J. M.) and Powis, equal; Bambrick and Cole and Cox and Goodstone and Hattie and Lomer and McLean (C. S.) and Narraway and Penney and Scott (R. W.) and Stark and Stuart and Wyman, equal.

ANALYTICAL GEOMETRY.

Second Year.—Class I.—Dodd, Linagh, Gregory, Carnwath, Scrivener, Willis (G. C.); Allwood and Ivey and Sankey and Walcott, equal. *Class II.*—Foster and Murphy, equal; Lipsey; Hooper and Murray, equal; Ovalle, de Gruchy; Brebner and Briercliffe and Falcke and Ray and Wilson (R. S. L.), equal. *Class III.*—Wilson (T. E.), Boyd, Ross, Pengelley; Cushing and Glasmacher, equal; Morkill; Evans and O'Leary, equal; Oughtred and Staveley, equal; Johnston (R. L.); Boast and Clark and Fortier and Gillies (C. C.) and Macaulay and Walker, equal; Stevenson; Bisson and Forman and Gnaedinger (C. W.) and Wood (D. F.), equal; Connolley and Henry and Holland and Kingsley and McDonald (P E.), and Philips, equal; Anderson (J. G.) and Ralston and Richardson (C. E.) and Smith and Willis (F. S.), equal; Alward and Archibald and Bacon and Elliott and Forbes and Kelly and Watson and Webb and White, equal.

CALCULUS.

Second Year.—Class I.—Dodd, Linagh, Willis; de Gruchy and Gregory, equal; Scrivener. *Class II.*—Sankey, Robinson; Oughtred and Walcott, equal; Murray; Allwood and Wilson (R. S. L.), equal; Carnwath, Glasmacher, Wood (D. F.), Earle, Morkill. *Class III.*—Ross; Archibald and Foster, equal; Hooper and O'Leary and Wilson (T. E.), equal; Briercliffe and Ivey and Johnston (R. L.), equal; Falcke; Alward and Gnaedinger (C. W.), and Millican and Nares and Pengelley and Ray, equal; Brebner; Elliott and Fortier and McDonald (P. E.), equal; Bisson and Murphy, equal; Galloway (J. D.) and Macaulay and Wood (H. W.), equal; Kingsley and Lipsey, equal; Gillies (C. C.) and Koch, equal; Forman and Ovalle and Stevenson and Walker, equal; Boyd and Connolley and Holland, equal; Staveley; Boast and Clark and Cushing and Evans and Forbes and Henry and Porter and Richardson (C. E.) and Smith and Watson and Willis (F. S.), equal.

MECHANICS.

Second Year.—Class I.—Linagh, Scrivener, de Gruchy, Dodd, Wilson (T. E.), Gregory (P. S.); Willis (G. C.) and Wilson (R. S. L.), equal. *Class II.*—Oughtred; Morkill and Murray (G. E.), equal; Earle and Wood (D. F.), equal; Allwood; Glasmacher and Sankey, equal; Gnaedinger (C. W.); Ivey and Ray (H. P.), equal; Falcke and Galloway (J. D.), equal; Carnwath and Smith (W. P.), equal; Foster (F. W.) and Underhill (F. C.), equal; Robinson (D. S.), Ovalle, Walker (G. H. P.). *Class III.*—Boast and Kingsley, equal; Hooper; Murphy (W. H.) and O'Leary, equal; Boyd (L. C.) and Briercliffe and Forbes, equal; Archibald (E. B.) and Johnston (R. L.), equal; Evans and Thompson, equal; Forman; Macaulay

and McDonald (P. E.) and Porter (C. G.), equal; Brebner and Clark (R. B.) and Elliott and Halliday and Willis (F. S.), equal; Cram and Fortier and Millican and Wood (H. W.), equal; Cushing and Staveley and Watson (H. M.), equal; Bacon and Irwin, equal; Bisson and Brydone-Jack and Gartshore and Holland and Walcott, equal; Christie and Collier and Henry and Planche and Philips, equal; Gillies (C. C.) and Koch and Nares (H. G.) and Pengelley and Ross (W. G.) and Roy (J. L.) and Stevenson and White (J. A. G.), equal.

ALGEBRA.

First Year.—Class I.—Gass and McLeod (D. L.), equal; Stroud, Heurtley; Hayward and Peden and Weir, equal; Davis and Duggan and Jelly, equal; Cohen (M. J.) and Tebbutt, equal. *Class II.*—Ryan, Ogilvie, Futterer, Schippel; Burr and DesRosiers, equal; Bell (D. A. S.) and Cameron and Cummer and May, equal; Hyman and Shaw, equal; Boyd (L. C.), Salter; Hugh-Jones and Norris, equal; Cole; Boyd (W. W.) and Kearns, equal; Abbott. *Class III.*—Barnes; Boyd (T. B.) and Brown (M. J.) and Hall, equal; Randolph; Fleming and Heward and Hodgson and McCammon and Skelton (R.), equal; Fay and Sawyer and Starke, equal; McGregor (D. M.), Lapp; Biddulph and Calkins and Casey and Garth and Hutchins and Kirby, equal; Hugessen and McNiven, equal; Bagshaw and Bonyun and Downes and Lynch (J. A.), equal; Robb; Chaffey and Macrae (L. P.) and Prince, equal; Mather; Davidson and Johnson and McCuaig and McMahon (J. W.) and Paddon and Traversy and Wade and Weber, equal; MacDermot and MacRae (J. P.) and Robertson and Saunders and Warburton and Whittall, equal; Barnaby and Elliott and Ellis and Rolland and Sherman, equal; Cardinal and Edwards and Farrell and Gohier and Graham (E. J.) and Green and Hadley and Halliday and Hanington and Hughson and King and Leckie and Lefebvre and Lesage and Macdonald (G. C.) and Turnbull and Vallance and Wilson (W. B.), equal.

DYNAMICS.

First Year.—Class I.—Weir, Jelly; Davis and Heurtley, equal; Mackenzie; McLeod (D. L.) and Peden, equal; Schippel and Stroud and Tebbutt, equal; Cummer and Gass and Kirby and May, equal. *Class II.*—Ryan, Hayward, Cameron, Lapp, Bell (D. A. S.), Boyd (W. W.); Casey and Hanington and Hetherington and Hugh-Jones and Shaw, equal; Robb; Cohen (M. J.) and Saunders and Thomas, equal; Barnes, Robertson (C.), DesRosiers; Beardmore and Biddulph and Burr and Elliott and Randolph and Skelton and Veilleux, equal; *Class III.*—Heward and Hyman, equal; Rennoldson and Salter, equal; Boyd (T. B.) and Mather equal; Calkins and Johnson and McMaster and Russell, equal; Duggan and Gougeon and Hutchins and McCammon, equal; McCuaig and McLeod (C. K.), equal; McMahon (J. W.); Fay and Hodgson and Hugessen and Legris (C. E.), equal; Blair and Hall and Lefebvre and McRae (J. P.) and Turnbull and Warburton and Weber, equal; Cash; Hamilton and Pitts, equal; Futterer and McDonald (G. C.) and Norris and Reinhardt, equal; Abbott and Downes and Gnaedinger (F. T.) and O'Brien and Routledge, equal; Cassels and Edwards and Hadley and Sherman and Wilson (W. B.), equal; Angus and

Cooper and Pullen and Redpath and Smith (B. O.) and Starke and Traversy, equal; Bolan and Bonyun and Brisbane and Brown (M. J.) and Hull and King and Lesage and Rolland and Sargent and Vallance, equal.

GEOMETRY.

First Year.—Class I.—Stroud; Heurtley and Weir, equal; Davis, Casey, Tebbutt. *Class II.*—Hugh-Jones and Kirby, equal; Cameron and McLeod (D. L.), equal; Hayward; Boyd (W. W.) and Cohen (M. J.), equal; DesRosiers and Hall, equal; Green and Ryan and Warburton, equal; Hutchins and Ogilvie and Peden, equal; Norris; Barnes and Duggan, equal; Bell (D. A. S.), Cummer. *Class III.*—Elliott and Thomas, equal; Salter and Saunders, equal; Jelly and Randolph, equal; MacKenzie and Redpath and Robertson(C.) and Shaw, equal; Boyd (T. B.) and Kearns and MacDermot and Mather and Robb and Schippel, equal; Duffield and Futterer and Garth and Legris (C. E.), equal; May; Cohen (N. B.) and Heward and Lapp and Lynch (J. A.) and McCammon and Sawyer and Skelton and Weber, equal; Metcalfe and Turnbull, equal; Pullen and Sargent, equal; Rolland; Calkins and Gnaedinger (F. T.) and Goode and Graham (E. J.) and Smith (B. O.), equal; Brown (M. J.) and Cole and Hetherington and Hull and Lesage and McMahon (J. W.), equal; Barnaby and Boyd (L. C.) and Gohier and Gougeon and Hodgson, equal; Fay and Finley and McMaster, equal; Beardmore and Davidson and Edwards and Gass and O'Brien and Reinhardt and Starke, equal; Blair; Biddulph and Cooper and Downes and Hanington and Lauder and Lefebvre and Macdonald (G. C.) and McCuaig and Masson and Paddon, equal.

TRIGONOMETRY.

First Year.—Class I.—Heurtley, Duggan, MacLeod (D. L.), Davis, Stroud; Cohen (M. J.) and Rolland and Weir, equal; Norris. *Class II.*—Boyd (W. W.) and Cameron, equal; Barnes and Hadley and Jelly, equal; Tebbutt; Clarke and Green and Hall, equal; Calkins and Chaffey and Futterer and May and Peden, equal; Ryan and Skelton, equal; McCammon; Abbott and Bagshaw and Heward, equal; Hayward and Wood (J. R.), equal; DesRosiers and McNiven, equal; Brown (M. J.) and Macrae (L. P.), equal; Peters and Shaw, equal; Biddulph and Cummer and Jordan, equal; Cole and Kirby and Mather and Randolph and Schippel, equal; Brophy and Casey and Kearns and Robb and Vallance and Whittall, equal. *Class III.*—Gass and Hutchins, equal; Bell (D. A. S.) and Hugh-Jones and Lefebvre and Pullen and Sawyer, equal; Fleming and Hugessen and Saunders and Warburton, equal; Edwards and Gnaedinger (F. T.) and Johnson and King, equal; Boyd (L. C.) and Hetherington and Legris (C. E.) and Reid (A. W.) and Turnbull, equal; Cooper; Hull and Hyman and Robertson and Veilleux, equal; Garth, Goode; Ethier and McMahon (J. W.) and Prince and Traversy and Stevens (S. R.), equal; Blair and Hodgson and Lynch (J. A.) and Metcalfe and Sherman, equal; Burr and Graham (E. J.) and Hughson and Paddon, equal; Farrell and Fay and Hanington and McLeod (C. K.) and Masson and Russell, equal; McRae (J. P.) and Pitts and Wheatley, equal; Gohier and Weber and Young, equal; Austin and Hamilton and Lapp and MacDermot and Moseley, equal; Bonyun and Gou-

geon and Leckie and Reinhardt, equal; Bolan and Elliott and McGregor and Salter and Wright, equal; Barnaby and Downes and McDougald and McLellan and McLennan and Nichols and Starke and Wade, equal; Armytage and McMaster and Patterson and Sargent and Thomas and Wilson (W. B.), equal.

MECHANICAL DRAWING.

Third Year.—(*Electrical Engineering Course.*)—*Class I.*—Boright. *Class II.*—Wood, Vinet, Gilchrist, Vroom, Dawes, Callendar; Ferrier and Fregeau, equal; MacAfee, MacDiarmid; Needham and Powis, equal. *Class III.*—Macdonald (J. H.) and McHenry, equal; Kohl and Williamson, equal; Jackson; Gill and McNaughton and Reid (R. H.), equal; Scott (R. W.), Alford, Townshend.

Third Year.—(*Mechanical Engineering Course.*)—*Class I.*—Fisher, Daubney (J. E.). *Class II.*—Magrath, MacKay (E.), Harris, Adrian; Buttenshaw and Donald, equal; Lomer and Stevenson, equal; *Class III.*—Macrae (J. M.), Hollinsed, Beagley, Day.

Second Year.—(*Summer School.*)—*Class I.*—Boright; Dobson and Vinet, equal; Powis. *Class II.*—Magrath, Daubney (J. E.), MacDiarmid, Donald (E. D.); Dawes and Kohl, equal; Fregeau and Macrae (J. M.), equal; Harris and Vroom, equal; Alford and Ferrier, equal; Needham and Wood (H. W.), equal. *Class III.*—Gilchrist and Reid (R. H.), equal; Gill, Callendar; Lomer and Scott (R. W.), equal; Beagley, Jackson, McHenry, Hollinsed; Macdonald (J. H.) and Ross (A. C.), equal.

Second Year.—*Class I.*—Foster, Scrivener, Willis (G. C.). *Class II.*—Briercliffe, Cushing; Forbes and Gnaedinger (C. W.) and Morkill, equal; Johnston (R. L.), Brotherhood, Clark, Archibald, Carnwath, Ivey; Beauvais and Johnston (R. C.), equal; Garth, Willis (F. S.), Walcott, Henry. *Class III.*—Linagh, Scott, Sankey; Bolton and Bacon and Beaulne and Ovalle and Smith, equal; Child and Gregory and Oughtred and Planche and Richardson (C. E.) and White (J. A. G.), equal; Boyd (L. C.) and Webb and Wilson (T. E.), equal; Dixon and Forman and Koch and Lockhart and Nares (H. G.), equal; Alward and Connolley and Pengelley and Watson and Wood (D. F.), equal; Austin and Ralston, equal; Dodd and Flewin and Gillies and Hooper and Murray, equal; Boast and Collier and Evans and Falcke and Lesage and Murphy and Stevenson and Thompson, equal; Brebner and Galloway (C. C.) and Glasmacher and Kingsley and Wilson (R. S. L.), equal; Cram and Darling and Dennison and Gorman and Holland and Lipsey, equal; Elliott and Fortier and Philips and Ross and Shanly, equal; Anderson (J. G.) and O'Leary, equal; Hasbrouck and Legris (C. E.) and McDougall, equal; Christie and Woodyatt, equal; Demers and Green, equal; Gohier and Robinson, equal.

First Year.—*Class I.*—Schippel, Saunders, Norris, Tebbutt; Ogilvy and Shaw and Weber, equal; Hadley; Silver and Stroud, equal; Calkins and Cummer, equal; Peden and Starke, equal; Randolph and Sargent, equal; Whittall. *Class II.*—Boyd (T. B.) and Cameron, equal; Mather, Williams; Kirby and Lauder and Robb, equal; Salter; Hanington and Reinhardt, equal; Alexander and Armstrong (J. D.) and McRae (J. P.), equal; Gnaedinger (F. T.) and McGannon, equal; Roy (J. L.); Barnaby and Holgate and Prince and Robertson, equal; Wheatley; Futterer and MacDermot and Masson and May and Ryan, equal; Skelton; Boyd (W. W.) and

Hugh-Jones and Redpath and Russell and Wilson (E. W.), equal; Casey and Hamilton and Kearns, equal; DesRosiers and Jelly and Wilson (W. B.), equal; Bell (D. A. S.) and Drummond and Hutchins and Logan, equal. *Class III.*—Blair and Johnson and Sawyer, equal; Biddulph; Brophy and Cunningham and Gougeon and Hayward, equal; Adam (R.) and Brown (L.), equal; Lefebvre and McLeod (C. K.), equal; Davis and Duggan and Edwards and Hodgson and McGregor (H. H.) and Thomas, equal; Cash and Hetherington and Hughson and LaForest and McLeod (D. L.), equal; Rennoldson; Burr and McCuaig, equal; Adam (J. A.) and Barnes and Heurtley and Hugessen and Thom, equal; Bell (W. E.) and Downes and Heward and Hull, equal; Duffield and Elliott and Metcalfe, equal; Gass and McDougald and Rolland and Suckling and Wright, equal; Bonyun and Donald and Goode and McMahon (J. W.) and Sherman, equal; Davidson (W. J.) and Nichols and Reid (E.), equal; Hall and Lynch (J. A.), equal; Graham (E. J.) and Pitts and Reid (A. W.), equal; Angus and Bolan and Cohen (M. J.) and King and Warburton, equal; Cooper and Fay and McDonald (G. C.) and Pullen, equal; McMaster and Paddon, equal.

MECHANICAL ENGINEERING.

Fourth Year.—(*Civil, Electrical, Metallurgy and Mining Engineering Courses.*)—*Class I.*—Dwight, Lindsay. *Class II.*—McKnight, Yuill; Fox and Kennedy, equal; Allen and Dickieson and Hague and McLean, equal; Mulock; Powell and Stewart, equal; Bronson; Dawson and Smith (G. W.), equal; Cate, Dennis. *Class III.*—Galbraith; Sailman and Seely and Wisdom, equal; Fetterly and O'Neill and Russell, equal; Wilson; Fraser and Gillis and Murphy and Soper, equal; Rider, Trotter, Winslow; Babson and Edwards and Johnston, equal; Gall, Bradshaw; Burbidge and Cantley and Hilborn, equal; Archibald (E. M. B.); Briggs and Dickson and Layton and Montague and Smith (S. M.), equal; Brown and DeLancey and Nairn and Sutherland, equal; Anderson; Briegel and Dion and Heywood and Landry and Manny and Morison and Ross and Thorne, equal.

Fourth Year.—(*Mechanical Engineering Course.*)—*Class I.*—McKinnon. *Class II.*—Ford, Robb, Stansfield. *Class III.*—Richardson, Grove, Renaud, Robertson; Goode and Graham (H. M.) and Spencer, equal; Maver.

Third Year.—(*Civil, Electrical and Mining Engineering Courses.*)—*Class I.*—Price. *Class II.*—Gill; Boright and Trench ,equal; Vroom, MacAfee, Cowles, Macdonald (J. J.), Simpson, Gilchrist; Farnsworth and McHenry, equal. *Class III.*—Smith, Fregeau; Ferrier and Stewart (R. B.), equal; Cowley and McNaughton, equal; Small, Needham; Jackson and Sproule, equal; Colter and Dennis and Gibbins and MacDiarmid and Reid (R. H.), equal; Callendar and Strong, equal; Cole; Fox and Jost and Robertson (W. S.), equal; Bambrick and Bennett and Brown and Cloran and Cox and Dawes and Fowler and Macdonald (J. H.) and Scott (R. W.) and Wyman, equal.

Third Year.—(*Mechanical Engineering Course.*)—*Class I.*—Fisher, Harris, Magrath. *Class II.*—Dobson, MacKay (E.), Donald. *Class III.*—Buttenshaw, Adrian, Day, Daubney (J. E.), Cook, Lomer, Stackhouse; Blackett and Hollinsed, equal; Beagley, Macrae.

MECHANICS OF MACHINES.

Fourth Year.—Class I.—McKinnon. *Class II.*—Robb, Ford, Richardson, Spencer. *Class III.*—Grove, Goode, Robertson, Renaud, Graham (H. M.), Stansfield, Ekers.

Third Year.—Class I.—Fisher. *Class II.*—Harris; Daubney (J. E.) and Vroom, equal; MacAfee, Gill; Gilchrist and McNaughton, equal; Boright and Dobson and Magrath, equal; Ferrier; Adrian and Donald, equal; Lomer and Needham, equal. *Class III.*—Jackson, Kohl; Reid (R. H.) and Stackhouse, equal; Fregeau and Mackay (E.), equal; Day; Buttenshaw and Vinet, equal; McHenry; Beagley and Williamson, equal; Blackett and Dawes, equal; Hollinsed and Scott (R. W.), equal; MacDiarmid; Ross (A. C.) and Townshend, equal.

Second Year.—Class I.—Scrivener, Linagh, Earle; Carnwath and Morkill and Sankey, equal. *Class II.*—Ivey, Wilson (R. S. L.); Glasmacher and Ray (H. P.), equal; Dodd and Staveley, equal; Gnaedinger (C. W.) and Robinson, equal; deGruchy and Murray, equal; Willis (G. C.); Collier and Gregory, equal; Briercliffe and Forbes and Galloway (J. D.) and Oughtred and Wilson (T. E.), equal; Falcke and Stevenson and Walker and Wood (D. F.), equal; Clark and Cushing and Dennison and Webb, equal. *Class III.*—Archibald and Willis (F. S.), equal; Bacon, Brotherhood; Boast and Henry and Johnston (R. L.), equal; Alward and Cram and Foster and Gartshore and Koch and Murphy and Ross (G.), equal; Boyd (L. C.) and Fortier and McDonald (P. E.), equal; Hooper; Child and Smith (W. P.), equal; O'Leary, Brebner; Elliott and Kingsley and Nares (H. G.) and Planche, equal; Forman and Ovalle and Richardson (C. E.), equal; Gorman and Scott and Underhill (F. C.) and White (J. A. G.), equal; Skelton and Walcott and Watson, equal; Holland and Irwin and Legris (J. A.) and Lipsey, equal; Johnston (R. C.) and Philips, equal; Oliver and Shanly, equal; Bisson and Cardinal and Darling and Gillies (C. C.) and Pengelley, equal.

METALLURGY.

Fourth Year.—Class I.—None. *Class II.*—Conway, Saunders. *Class III.*—Brunton.

Third Year.—Class I.—Cowles. *Class II.*—Strong, Cummins; Fowler and McLeod, equal; Meek; Ayer and Cox and Simpson, equal; Gibbins and Pearce and Porter, equal; Brown and Brunton and Stuart (A. G.) and Williams, equal. *Class III.*—Rutherford; Haultain and MacFarlane, equal; Elkins, McLean (C. S.), Fox; Maltby and Sanderson, equal; Archibald and Burland, equal; Penney, Durant, Baylis.

METALLURGICAL CALCULATIONS.

Third Year.—Class I.—None. *Class II.*—Porter; Penney and Sanderson, equal. *Class III.*—Williams.

METALLURGICAL DESIGN.

Fourth Year.—Class I.—Conway. *Class II.*—Saunders.

METALLURGY OF COPPER AND LEAD.

Fourth Year.—Class I.—Kennedy and Stewart, equal; Conway and Yuill, equal; Nairn and Rider, equal. *Class II.*—Hilborn and Saunders, equal; Cantley and Drysdale, equal; O'Neill. *Class III.*—Gillis and Sutherland, equal; Morison, Babson; Brunton and Winslow, equal; Eakins.

METALLURGY OF IRON AND STEEL.

Fourth Year.—Class I.—Cantley, Stewart. *Class II.*—Yuill; Conway and Drysdale, equal; Nairn, Wisdom. *Class III.*—O'Neill; LaForest and Saunders, equal; Sutherland, Hilborn, Rider, Winslow, Babson, Kennedy.

MINERALOGY.

Third Year.—Class I.—Cowles, Ayer. *Class II.*—Cox, Brown (O. N.), Fowler; Gillies (G. A.), and Simpson, equal; Archibald; Meek and Strong, equal; Rutherford; Elkins and Gibbins and Macfarlane, equal; Fox, Maltby. *Class III.*—McLean; Burland and Stuart (A. G.), equal; McLeod, Haultain, Sanderson, Pearce; Boyd (G. M.) and Durant and Williams, equal.

MINING.

Fourth Year.—Class I.—Stewart, Yuill. *Class II.*—Nairn; Babson and Rider, equal; Hilborn, Gillis, Kennedy, Winslow, Sutherland, Eakins, Cantley, Galbraith, O'Neill. *Class III.*—Drysdale, Wisdom, Morison.

MINING MACHINERY AND DESIGN.

Fourth Year.—Class I.—Yuill, Cantley. *Class II.*—Kennedy, Babson; Hilborn and Stewart, equal; O'Neill, Gillis. *Class III.*—Rider, Galbraith, Eakins, Nairn, Sutherland, Winslow, Wisdom, Drysdale.

MINING FIELDWORK.

Fourth Year.—Class I.—Yuill. *Class II.*—Babson and Kennedy, equal; Gillis; Galbraith and Nairn, equal; O'Neill and Rider and Stewart, equal; Hilborn, Conway. *Class III.*—Brunton, Drysdale; Eakins and Winslow, equal; Cantley and Sutherland, equal; Morison and Saunders, equal.

MUNICIPAL ENGINEERING.

Fourth Year.—Class I.—Fox, Dennis. *Class II.*—Sailman; Powell and Smith, equal; Dawson and Johnston, equal; McLean, DeLancey. *Class III.*—Heywood; Bronson and Russell and Thorne, equal; Burbidge; Dickson and Fetterly, equal; Anderson; Brown (L. O.) and Descarries and Ryan, equal; Chappell; Goodchild and Poissant and Ross (C. C.), equal; McKinnon, Manny.

Third Year.—Class I.—Smith, Small, Chappell; Farnsworth and Macdonald (J. J.), equal. *Class II.*—Jost and Stewart (R. B.), equal; Anderson and Colter and Hattie, equal; Price, Dowie, Menzies, Cloran; deHart and Sproule and von Pozer, equal; Dennis; Bambrick and Narraway, equal; Dakin, Duguid; Cole and Cowley and Frith, equal; Scott (O. H.); Daubney (C. B.) and Ewart and Robertson (W. S.) and Ryley, equal; Hughes and Malloch and Wyman, equal. *Class III.*—Robertson (E. D.); Bennett and Hanson and Young and Younger, equal; Descarries and Little, equal; Mauer and Reid (A. C.), equal; Goodstone; Gladman; Stark and Trench, equal.

OPERATING.

Fourth Year.—Class I.—Ker, Coulin.

ORE DEPOSITS.

Fourth Year.—Class I.—Kennedy and Stewart, equal; Rider and Yuill, equal. *Class II.*—Drysdale, Hilborn; Winslow and Wisdom, equal; Galbraith and Nairn, equal. *Class III.*—O'Neill, Morison, Cantley; Babson and Eakins, equal; Gillis; Letourneau and Sutherland, equal.

ORE DRESSING.

Fourth Year.—Class I.—Yuill. *Class II.*—Babson and Kennedy, equal; Gillis, Nairn; O'Neill and Rider and Stewart, equal; Galbraith, Hilborn, Conway. *Class III.*—Brunton, Drysdale; Eakins and Winslow, equal; Cantley and Sutherland, equal; Morison and Saunders, equal.

Third Year.—Class I.—Cowles, Strong, Fowler. *Class II.*—Ayer, Cox Williams, Brown, Simpson, Gibbins, Fox; Archibald and McLean, equal; Elkins and Meek, equal; Macfarlane. *Class III.*—Gillies (G.A.) and Porter, equal; Haultain, Penney, Cummins, Burland, McLeod, Rutherford, Sanderson.

ORGANIZATION AND ACCOUNTING.

Fourth Year.—Class I.—Ker, Coulin.

Third Year.—Class I.—Clark. *Class II.*—Derrom, Slingsby, Timberlake, McNab, Popham.

PASSENGER SERVICE.

Fourth Year.—Class I.—Ker. *Class II.*—Coulin, Slingsby.

PHYSICAL GEOGRAPHY.

Fourth Year.—Class I.—Slingsby, Ker. *Class II.*—Coulin.

RAILWAY ENGINEERING.

Fourth Year.—(Civil Engineering and Transportation Courses).—Class I.—Fox and Smith, equal; Johnston; Coulin and Sailman, equal; Bronson and Ker, equal. *Class II.*—McLean, Powell, Bradshaw, Dawson; Dennis and Heywood, equal; Montague, Layton, Burbidge. *Class III.*—McKinnon, Russell, DeLancey, Manny, Goodchild, Thorne, Ross (C. C.); Anderson and Fetterly, equal; Dickson.

Third Year.—Class I.—Farnsworth. *Class II.*—Price, Macdonald (J. J.), McNab, Clark, Anderson. *Class III.*—Trench and von Pozer, equal; Smith; Hattie and Robertson (W.S.), equal; Bennett, Narraway; Cowley and Dakin and Goodstone and Small, equal; Menzies; de Hart and Hanson and Robertson (E. D.), equal; Ewart and Sproule, equal; Jost and Stewart and Younger, equal; Popham, Cloran; Bambrick and Wyman, equal; Cole and Colter and Daubney (C. B.) and Dennis and Ryley and Wood (J. R.) equal.

RAILWAY ENGINEERING DRAFTING.

Third Year.—Class I.—Farnsworth and Hattie and Price, equal; Macdonald (J. J.). *Class II.*—Sproule; Dakin and Robertson (W. S.), equal; Stewart (R. B.); Duguid and Younger, equal; Anderson (G. F.) and Ewart, equal; Cowley, Trench; Daubney (C. B.) and Ryley and Smith (A. W.), equal; Jost and Small, equal. *Class III.*—Colter and Timberlake, equal; Young; Hanson and Robertson (E. D.) and Wood (J. R.), equal; McNab; Goodstone and Millican and von Pozer, equal; Cole; Clark and Narraway, equal; Menzies, Bennett; Bambrick and de Hart, equal; Popham, Wyman; Bisson and Hughes, equal; Cloran, Derrom; Dennis and Mauer and Stark and Tanner, equal.

RAILWAY MECHANICAL ENGINEERING.

Fourth Year.—Class I.—Ker. *Class II.*—Coulin.

Third Year.—Class I.—Derrom, McNab. *Class II.*—Timberlake, Clark, Slingsby, Popham.

RAILWAY MECHANICAL ENGINEERING DRAFTING.

Fourth Year.—Class I.—None. *Class II.*—Coulin, Ker.

SHOPWORK.

Fourth Year.—Class I.—Goode, MacKay (G. W.), Grove, Grahame (D. F.). *Class II.*—Ekers and Robertson, equal; Ford, Richardson; McKinnon (K. R.) and Robb, equal; Stansfield, Graham (H. M.).

Third Year.—Class I.—Fisher, Daubney (J. E.). *Class II.*—Buttenshaw; Harris and Magrath, equal; Adrian and MacKay (E.), equal; Dobson, Macrae, Day; Beagley and Blackett and Donald, equal; Lomer.

Second Year.—Class I.—Scrivener. *Class II.*—Briercliffe and Forbes, equal; Linagh and Webb, equal; Carnwath and McDonald (P. E.), equal; Archibald; Gnaedinger (C. W.) and Morkill and Scott and Walker and Willis (F. S.) and Wilson (R. S. L.), equal; Campbell and Forman and Robinson and Willis (G. C.), equal; Wood (D. F.); Brotherhood and Cushing and Dennison and Henry, equal; Bacon and Child and Sankey, equal; Clark and Lockhart and Planche, equal; Demers and Oughtred and Pengelley and Thompson, equal; Collier and Walcott, equal; Christie and Dodd and Elliott and Galloway (C. C.) and Matheson and Richardson (C. E.) and Smith, equal; Boast and Foster and Gillies and Gregory and Koch and Murphy and Ross and Watson, equal. *Class III.*—Falcke and Oliver and Wilson (T. E.) and Woodyatt, equal; Dixon and Gorman

and Stevenson and White (J. A. G.), equal; Bolton; Austin and Kingsley, equal; Cram and Fortier and Garth and Glasmacher and Ivey and Murray, equal; Phillips, Johnston (R. C.), Evans, Johnston (R. L.); Ray and Staveley, equal; Irwin.

First Year.—Class I.—Schippel. *Class II.*—Sherman; Ogilvie and Smith and Weir, equal; MacLeod (D. L.), McRae (J. P.); Cummer and Saunders and Shaw, equal; Biddulph and Edwards and Futterer and Gass and Hadley and Hanington and Hayward and Hodgson and Lefebvre and MacDermot and May and Robb, equal; Nichols and Sargent, equal; Barnes and Hughson and McMahon (J. W.) and Roy and Ryan and Skelton, equal; Calkins and DesRosiers and McGannon and Norris and Salter, equal; Cameron and Cole and Gougeon and Randolph and Stroud, equal; Bell (D. A. S.) and Hutchins and Robertson and Tebbutt and Thomas and Williams, equal; Alexander and Drummond and Elliott and Hamilton and McLeod (C. K.) and Metcalfe and Reinhardt and Russell and Weber, equal; Burr and Rolland and Webster and Wilson (W. B.), equal; Cohen (M. J.) and Downes and Hugh-Jones and Jelly and Routledge and Traversy and Wheatley, equal; Brophy and Brown (L.) and Duggan and Fay and Lynch (J. A.) and Peden and Vallance, equal; Johnson and McCuaig and Moseley and Silver and Turnbull, equal; Cohen (N. B.) and Goode and Hall and Kearns and Lapp and Pitts and Starke and Town and Wills, equal. *Class III.*—Adam (J. A.) and Armstrong and Casey and Clark (J. H.) and Coombes and Davidson (W. J.) and Davis and Duffield and Suckling and Wilson (E. W.), equal; Abbott and Bolan and Boyd (T. B.) and Boyd (W. W.) and Cash and Hull and Redpath and Sawyer and Warburton, equal; Barnaby and Bell (W. E.) and McGregor and Thom, equal; Hetherington and Hugessen, equal; Cassels and Hyman and Kirby and Wright, equal; Brown (M. J.) and Heurtley and MacDonald (G. C.), equal; Lynch (T.), Young.

SHORTHAND.

Fourth Year.—Class I.—Coulin, Ker.

Third Year.—Class I.—Timberlake. *Class II.*—Derrom, Popham. *Class III.*—McNab and Slingsby, equal.

SIGNALS.

Fourth Year.—Class I.—None. *Class II.*—Coulin, Ker.

SPECIFICATIONS AND ACCOUNTS.

Third Year.—Class I.—Fisher, Small, Jost, Price, Brown, Cowles. *Class II.*—Stuart (R. B.), Macdonald (J. J.); Ayer and Gibbons and Younger, equal; Smith, Cowley, Robertson (W. S.), Burland; Dakin and Macfarlane, equal; Gillies and Hattie and McLeod, equal; Farnsworth and Hanson and Harris and Sanderson and Simpson, equal; Cole, Young, Knewstubb; Bennett and Sproule, equal; Anderson and Donald, equal; de Hart and Trench, equal; MacLean. *Class III.*—Magrath and Mauer and Strong and Wyman, equal; Colter and Fowler and Williams and Wood (J. R.), equal; Adrian and Elkins, equal; Cox and Porter, equal; Beagley and Dobson, equal; Archibald, Penney; Blackett and Goodstone and Stuart (A. G.), equal; Malloch and Stackhouse, equal; Dennis

and Frith and Macrae, equal; Cook and Daubney (C. B.) and Lomer and Stark, equal; Bambrick and Ryley, equal; Cloran and Day and Hughes and Maltby, equal; Duguid and Fox, equal; Ewart and Meek and Robertson (E. D.) and Rutherford and Von Pozer, equal; Hollinsed and Menzies and Narraway and Scott (O. H.), equal.

STRENGTH OF MATERIALS.

Third Year.—Class I.—Gill and Harris and McNaughton, equal; McHenry; Farnsworth and Stewart (R. B.), equal; Fisher, Scott (O. H.), Gilchrist, Boright; Dowie and Macdonald (J. J.), equal; Cowles and Fowler, equal; Narraway. *Class II.*—Hattie and MacAfee, equal; Ayer and Dawes and Smith, equal; Dakin and Jost and McLean and Sproule, equal; Beagley and Magrath, equal; Colter and Dennis and Small, equal; Malloch, Haultain; Kohl and Reid (A. C.), equal; Clark and Cloran, equal; Menzies and Reid (R. H.), equal; Cowley and Rutherford, equal; Bennett and Burland, equal; de Hart and Strong, equal; Cox and Ewart, equal; Adrian and Daubney (J. E.) and Goodstone and Needham, equal. *Class III.*—Elkins and Stackhouse and von Pozer, equal; Cole and Ryley, equal; Anderson and Slingsby, equal; Blackett and Daubney (C.B.) and Ferrier, equal; Gibbins and Popham, equal; Cook; Macdonald (J. H.) and Robertson (W. S.), and Stuart (A. G.) and Vroom, equal; Price; Archibald and Dobson and McLeod and McNab and Scott (R. W.), equal; Buttenshaw and Brown and Robertson (E. D.), equal; Williamson; Day and Jackson, equal; MacKay (E.) and Wyman, equal; Pearce; Bambrick and Fregeau and Hollinsed, equal; Bisson and MacDiarmid and Meek and Sanderson, equal.

STRUCTURAL ENGINEERING.

Third Year.—(Civil Engineering and Transportation Courses.)—Class I.—Dowie, Farnsworth; Cowley and Smith, equal; Hattie, Sproule; Dakin and Jost and Macdonald and Stewart, equal. *Class II.*—Trench; Bennett and Timberlake, equal; Cole and Dennis and Price, equal; Colter, Robertson (W.S.), McNab; Daubney (C.B.) and Von Pozer, equal; Cloran and Small, equal; Anderson; Bambrick and Ryley, equal; Malloch. *Class III.*—de Hart and Duguid, equal; Hanson, Goodstone; Clark and Wyman and Young, equal; Frith; Menzies and Popham, equal; Slingsby, Hughes, Narraway; Derrom and Knewstubb and Mauer and Scott (O. H.), equal; Younger, Ewart; Robertson (E. D.) and Tanner, equal.

Third Year.—(Mechanical, Metallurgy and Mining Engineering Courses.)—Class I.—Fisher; Harris and McLean, equal; Cox and Cummins, equal. *Class II.*—Gibbins, Brown, Simpson, Macfarlane; Burland and Cowles and Strong, equal; Ayer, Fowler; Gillies (G. A.) and Haultain and Magrath, equal; Meek, Dobson; Adrian and Cook and Stuart, equal; MacKay (E.), McLeod; Archibald and Donald and Lomer, equal; Stackhouse, Blackett. *Class III.*—Pearce and Rutherford, equal; Beagley and Porter, equal; Buttenshaw and Stevenson, equal; Macrae and Sanderson, equal; Day and Williams, equal; Fox, Hollinsed, Elkins.

SUMMER ESSAY.

Fourth Year.—(*Civil Engineering Course.*)—*Class I.*—Bronson and Sailman, equal; DeLancey and McLean, equal; Fetterly and Smith, equal. *Class II.*—Byrne and Russell, equal; Dickson and Heywood, equal; Layton, Burbidge. *Class III.*—Dawson, Lumsden, Montague, Johnston.

Fourth Year.—(*Electrical Engineering Course.*)—*Class I.*—Mulock, Soper, Lindsay, Trotter. *Class II.*—Dion; Gomes and Wilson, equal; Briggs, Dwight. *Class III.*—Cate.

Fourth Year.—(*Mechanical Engineering Course.*)—*Class I.*—Stansfield. *Class II.*—Grahame (D. F.) and McKinnon (K. R.), equal; Ford and Goode, equal. *Class III.*—Graham (H. M.) and Robb, equal.

Fourth Year.—(*Metallurgy and Mining Engineering Courses.*)—*Class I.*—Stewart, Rider, Yuill, Cantley, Kennedy. *Class II.*—Babson, Brunton; Drysdale and Hilborn and Nairn, equal; Galbraith; Conway and O'Neill and Wisdom, equal. *Class III.*—Morison, Sutherland, Winslow, Saunders.

Fourth Year.—(*Transportation Course.*)—*Class I.*—Coulin. *Class II.*—Ker.

Third Year.—(*Civil Engineering Course.*)—*Class I.*—Dowie, Sproule, Ferrier. *Class II.*—Hattie and Macdonald (J. J.), equal; Boright and Buttenshaw and Fisher and Menzies and Vinet, equal; Farnsworth and Little and Price and Small, equal; Bambrick and Callendar and Dennis (T. C.) and Duguid and Stuart (A. G.), equal. *Class III.*—Cowley; Cloran and Donald and Popham and Ryley, equal; Colter.

Third Year.—(*Electrical Engineering Course.*)—*Class I.*—MacDiarmid and Reid (R. H.), equal. *Class II.*—Needham, McHenry. *Class III.*—Williamson.

Third Year.—(*Mechanical Engineering Course.*)—*Class I.*—Magrath; Harris and Timberlake, equal. *Class II.*—Briegel, Stackhouse, Beagley, Lomer. *Class III.*—Smith (S. M.).

Third Year.—(*Mining Engineering Course.*)—*Class I.*—Burland, Cowles. *Class II.*—McLeod and Rutherford, equal; de Hart; Brunton and Macfarlane, equal. *Class III.*—Fox and Gibbins, equal; Strong.

Third Year.—(*Transportation Course.*)—*Class I.*—None. *Class II.*—Clark, McNab. *Class III.*—Slingsby.

SURVEYING.

Third Year.—(*Civil Engineering Course.*)—*Class I.*—Farnsworth, Price, Cowley, Macdonald (J. J.). *Class II.*—Jost and Small, equal; Hattie; Dennis and Smith, equal; Stewart, Cole, de Hart; Colter and Dakin, equal; Trench, Anderson, Menzies, Sproule; Cloran and Malloch, equal. *Class III.*—Ewart; Bennett and Robertson (W. S.), equal; Bambrick; Narraway and Robertson (E. D.), equal; Goodstone, von Pozer, Wyman, Younger, Young, Ryley; Duguid and Hughes, equal.

Third Year.—(*Mining Engineering Course*).—*Class I.*—Cowles, Brown, Fowler. *Class II.*—Simpson, Ayer, Pearce, Rutherford, McLeod; Gibbins and McLean, equal. *Class III.*—Stuart (A. G.), Cox, Burland, Strong, Archibald; Haultain and Meek, equal; Fox, Elkins, Macfarlane, Brunton.

Second Year.—Class I.—Scrivener, de Gruchy, Linagh, Wilson (R. S. L.); Dodd and Willis (G. C.), equal. *Class II.*—Henry and Morkill and Sankey, equal; Carnwath and Wilson (T. E.), equal; Wood (D. F.), Gnaedinger (C. W.), Boast, Foster; Allwood and Johnston (R. L.), equal; Oughtred and Stevenson, equal; Archibald and Gregory and Ray and Watson, equal; Staveley; Earle and Ivey, equal; Falcke and Walcott, equal. *Class III.*–Kingsley and Pengelley and Robinson, equal; Murray; Brotherhood and Walker, equal; Brebner and Dennison and Forbes and Gillies (C. C.), equal; Ross, Koch; Bacon and Child and Hooper and O'Leary, equal; Briercliffe; Fortier and MacDonald (P. E.) and Webb and Willis (F. S.), equal; Forman and Holland and Ovalle, equal; Clark and Glasmacher and Underhill (F. C.), equal; Elliott and MacDonald (G. H.) and Planche and Richardson (C. E.) and Smith, equal; Bolton and Cushing and Lockhart, equal; Kelly and Nares (H. G.), equal; Thompson; Boyd (L. C.) and Cram and Crockett, equal; Collier and Galloway (J. D.) and Irwin and Johnston (R. C.) and Skelton, equal; Brydone-Jack and Evans and Garth and Gartshore and Lipsey, equal.

SURVEYING FIELDWORK.

Fourth Year.—Class I.—Fox, McLean. *Class II.*—Dawson, Smith; Bradshaw and Dennis, equal; Layton, Montague, Powell, Ross; Heywood and Russell and Sailman, equal; Fetterly, Dickson. *Class III.*—Bronson and De Lancey, equal; Burbidge; Goodchild and Johnston, equal; Anderson, McKinnon, Lumsden, Bayly, Poissant.

Third Year.—Class I.—Hattie, Macdonald (J. J.), Cowles. *Class II.*—Dakin and Sproule, equal; McLean, Price; Robertson (W. S.) and Young, equal; Derrom and McNab, equal; Jost and Meek and Stuart (A. G.), equal; Anderson; Hughes and Ryley and Smith (A. W.), equal; Archibald (M. S. E.) and McLeod and Maltby and Small, equal; Eldridge; Cox and Fowler and Pearce and Robertson (E. D.) and Wyman, equal; Ayer and Cowley and Fox and Haultain, equal; Bennett and Duguid and Fitzpatrick and Gibbins and Menzies and Millican and Narraway and Timberlake and Wood (J. R.), equal; Cloran; Rutherford and von Pozer, equal; Burland and Dennis and Farnsworth and Hanson and Young (W. L.), equal; Bisson and Chappell, equal; Tanner. *Class III.*—Daubney (C. B.) and Legris (J. A.) and Simpson, equal; Cole and Strong, equal; Slingsby; Clark and Ewart, equal; Colter and Elkins, equal; Brown; Sutherland, Nares (H. G.), Popham, de Hart, Cardinal, Stark; Brunton and Goodstone, equal; Mauer.

Second Year.—Class I.—Staveley; Ray and Smith (W. P.), equal; Hawkins and Linagh, equal; Archibald (E. B.). *Class II.*—Boast and Walker, equal; Child and Johnson (R. L.), equal; de Gruchy and Forbes and Heurtley and Thompson and Wood (D. F.), equal; Oughtred and Pengelley, equal; Allwood and Carnwath and Dodd and Walcott, equal; Barnaby and Clark and Foster and Murphy and Ovalle, equal; Bacon and Campbell and Forman and McDonald (P. E.) and Willis (F. S.), equal; Brotherhood and Connolley and Dixon and Fortier and Lesage, equal; Briercliffe and Collier and Gnaedinger (C. W.) and Gohier and Holgate and Philips and Planche and Ross (W. G.), equal; Demers and Flewin and Garth and Ivey and Kelly and Legris (C. E.), equal; Evans and Gregory

and Lipsey and Sankey and Webb, equal; Mallory and Richardson (C. E.) and Stevens (S. R.), equal; Darling and Koch and Richardson (A. I.) and Stevenson, equal; Lockhart and Turner, equal; Christie and Gall and Hooper and Murray and Watson and Woodyatt, equal; Brosseau and Clawson and MacDonald (G. H.) and Matheson and Wilson (T. E.), equal; Bolton and Gnaedinger (F. T.) and Kingsley and Ralston, equal; Anderson (J. R.) and Lewis, equal; Alward and Beaulne and Falcke and Gillies (C. C.) and McMannus and Peck and Scott (A. N.), equal; Green. *Class III.*—Armstrong (J. H.) and Cram and Elliott (F. E.) and Gorman and Lindsay and Nares (H. G.), equal; McDougall; Anderson (J. G.) and Holland and Irwin and Johnson (R. C.), equal; McInnes, Cushing, Morkill, Brebner.

TELEGRAPHY.

Fourth Year.—Class I.—Ker, Coulin.

Third Year.—Class I.—McNab, Derrom, Timberlake, Clark. *Class II.*—Popham, Slingsby.

THEORY OF STRUCTURES.

Fourth Year.—Class I.—McLean, Fox, *Class II.*—Smith, Bradshaw, Sailman Dennis, Powell. *Class III.*—Johnston, Bronson, Dawson, Fetterly, Burbidge, Montague, Baylis, Layton, Russell, Dickson; Heywood and Ross, equal; DeLancey. *Passed.*—Brown.

THERMODYNAMICS.

Fourth Year.—(Electrical Engineering Course).—Class I.—Dwight, Lindsay, McKnight, Edwards, Smith, Briggs, Gall; Landry and Mulock, equal; Dickieson. *Class II.*—Soper, Slavin, Fraser, Wilson; Cate and Dion, equal; Hague, Trotter, Allen. *Class III.*—Murphy, Gomes, Briegel.

Fourth Year.—(Mechanical Engineering Course).—Class I.—McKinnon, Robb. *Class II.*—Ford. *Class III.*—Goode, Spencer, Stansfield, Grove.

Third Year.—Class I.—Fisher, Harris, Stackhouse, Magrath, Blackett. *Class II.*—Hollinsed, Cook, Adrian, Buttenshaw, Lomer; Beagley and Donald, equal; MacKay (E.); Daubney (J. E.) and Day, equal; Macrae. *Class III.*—Dobson.

McGILL UNIVERSITY COLLEGE OF BRITISH COLUMBIA.

STANDING IN DRAWING, LABORATORIES AND SHOPWORK

FREEHAND DRAWING AND LETTERING.

First Year.—Class I.—McNiven, Chaffey. *Class II.*—Leckie; Fleming and Wade, equal; Price, Bagshaw, Draper. *Class III.*—Underhill, McLellan, Farrell, McLennan; Macrae and Smith, equal; Elliott and McGregor, equal; Armytage and Ellis, equal.

LABORATORIES.

CHEMICAL LABORATORY.

Second Year.—Class I.—None. *Class II.*—Brydone-Jack. *Class III.*—Galloway, Underhill, McKinnon.

PHYSICAL LABORATORY.

First Year.—Class I.—Bagshaw and Wade, equal; McGregor and Macrae, equal; McNiven, Fleming. *Class II.*—Chaffey, Ellis, McLellan, Underhill. *Class III.*—Draper, Farrell, Smith, Armytage; Elliott and Leckie and McLennan and Price, equal.

MAPPING.

Second Year.—Class I.—None. *Class II.*—Brydone-Jack, Underhill, Galloway. *Class III.*—McKinnon.

MECHANICAL DRAWING.

Second Year.—Class I.—None. *Class II.*—Earle, Underhill, McLeod. *Class III.*—Brydone-Jack, Galloway, McKinnon.

First Year.—Class I.—None. *Class II.*—Underhill, McLellan, Farrell; McNiven and Wade, equal; Bagshaw, Draper; Macrae and Smith, equal. *Class III.*—Chaffey, Fleming, Leckie, McGregor.

SHOPWORK.

CARPENTER SHOP.

First Year.—Class I.—Wade. *Class II.*—McNiven, Chaffey; Fleming and Smith and Underhill, equal; Macrae, Farrell; McGregor and McLennan, equal. *Class III.*—Ellis; Draper and Elliott, equal; McLellan; Armytage and Leckie, equal.

MACHINE SHOP.

Second Year.—Class I.—None. *Class II.*—Earle, Galloway. *Class III.*—Brydone-Jack, Underhill, McKinnon.

SMITH SHOP.

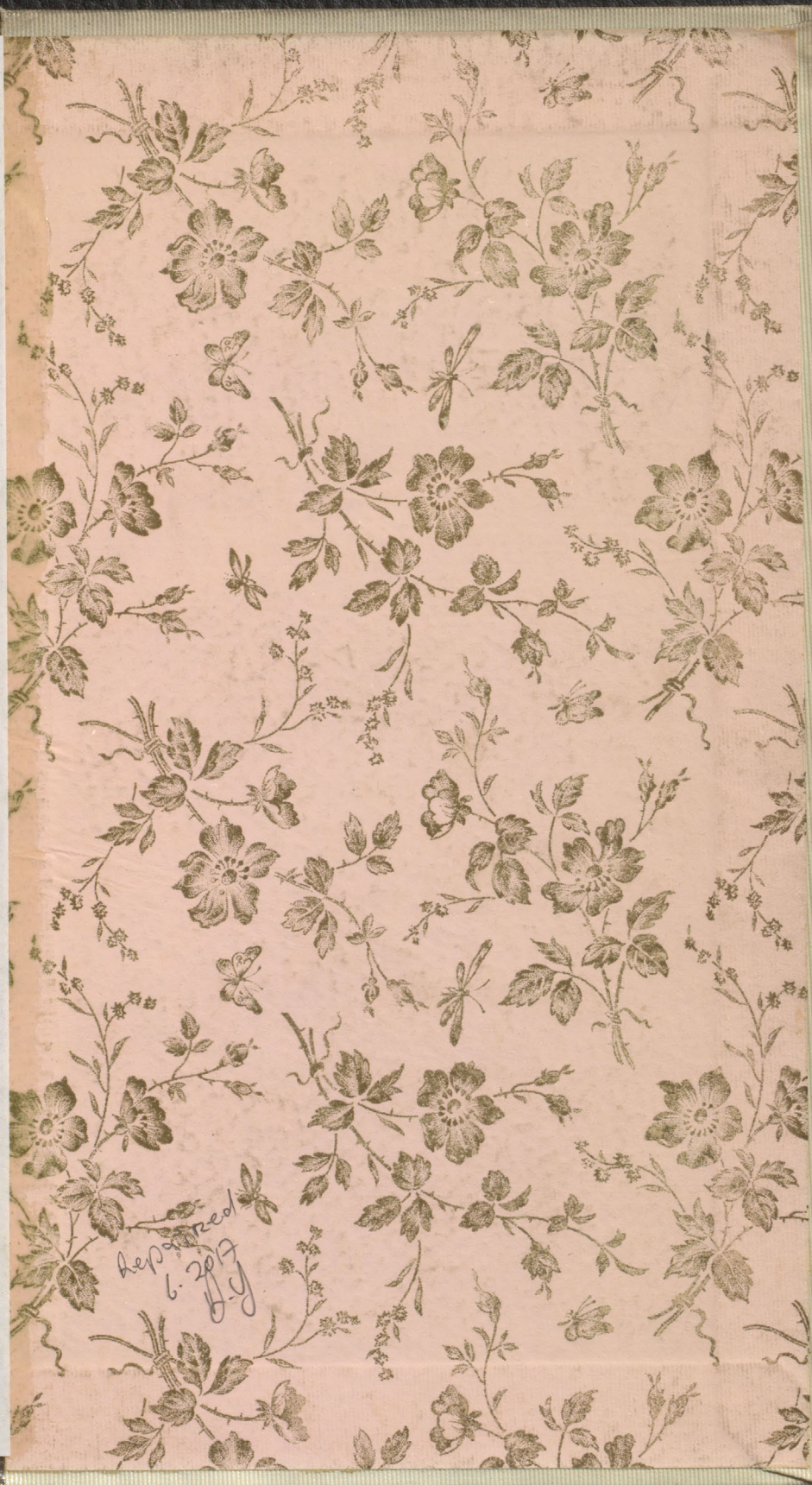
First Year.—Class I.—None. *Class II.*—Earle and Eldridge, equal; *Class III.*—Galloway and McKinnon, equal; Brydone-Jack.

First Year.—Class I.—Wade. *Class II.*—Bagshaw; Farrell and Smith and Underhill, equal; Fleming and McNiven, equal. *Class III.*—Draper and McGregor and Macrae, equal; Ellis and McLellan, equal; Elliott; Armytage and McLennan, equal.

SURVEYING FIELDWORK.

Second Year.—Class I.—None. *Class II.*—Galloway, Brydone-Jack. *Class III.*—McKinnon, Underhill.




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